MODEL 5803 ADVANCE CONTROL BASE
FOR THE
MODULAR TABLE SYSTEM

MAINTENANCE and REPAIR MANUAL

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ã **OSI 2005** **NW 0422 Rev.E**

IMPORTANT NOTICES

CAUTION: To ensure safe operation of the equipment, please READ THESE INSTRUCTIONS COMPLETELY and keep this manual readily available for future reference.

Carefully observe and comply with all warnings, cautions and instructions placed on the equipment or described in this manual.

In this manual, the **WARNING** symbol is intended to alert the user to the presence of important operation, maintenance, or safety instructions.

Dans ce manuel, le symbole **AVERTISSANT** est projeté d'alerter l'utilisateur à la présence d'opération importante, l'entretien, ou les instructions de sûreté.

Classification and Table Rating

The 5803 table is considered Class I Exempt *and has a rating of* IPX-4.

PROTECTION AGAINST ELECTRICAL SHOCK HAZARD:

This symbol **indicates this equipment is an applied part TYPE B and is generally suitable for applications involving external or internal contact with the patient, excluding the heart. The patient circuit is connected to protective earth and this equipment should be connected only to outlets with a protective earth ground.**

LA PROTECTION CONTRE LE DANGER DE CHOC ELECTRIQUE:

Ce symbole **indique cet équipement est un appliqué partie TYPE B et est pour applications impliquant externe ou interne contact avec le malade, exclure le coeur. Le est connecté à protectif terre et ce devrait être seulement connecté à sorties avec un protectif terre. Cet équipement a un IPX-4 évaluant.**

This symbol **indicates the external stud that is at the same potential as the equipment. If the AC power cable is not connected to an outlet with a protective earth ground, this external stud should be connected to a protective earth ground.**

This device is to be used by trained personnel only.

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1.0 INTRODUCTION

1.1 General Description

This manual describes the use, maintenance, and repair of the Modular Table System (MTS) 5803 Advance Control I-Base, DC (5803 Base). It is the primary component of the system designed to support patients for a variety of surgical procedures. There are five procedure-specific Table Tops: Jackson Spinal, Imaging, Trauma, Endourology and Maximum Access™ Lateral Top available for use on the MTS Base.

1.2 Specifications

- Maximum patient weight: Table Top specific but not to exceed 500 lbs
- Height Range 34 - 48 inches for Orthopedic Top
- Trendelenburg Range 10° ±3°
- Powered Tilt Range 25° ±3°
- Power Input 120 VAC at 60 Hz or 230 VAC at 50 Hz and internal battery power
- Compatible Tabletops All MTS tops equipped with gimbals.
- Overall Length 120 inches
- Retracted Length 73.5 inches
- Width 30 inches
- Maximum tilt torque 55 ft-lb
- Maximum brake torque 95 ft-lb
- Duty Cycle 4% or 2.5 minutes continuously per hour

1.3 Shipping

The 5803 Base must be shipped in a manner that prevents damage to its structural elements, caster wheels, electronics, and operating controls. Contact with solid objects in the environment must be prevented during shipment and storage, except at the four Casters. Banding for lateral constraint is to be limited to the base structure. Additionally, banding of the Head End Assembly to prevent movement of the trolley is necessary. It is not necessary to fully crate the 5803 Base if it is assured that no impact with foreign solid objects will be made during transit. The 5803 Base is to be shipped in an environment within the following limits:

- Ambient temperature -20° C to +50° C (32°F & 120°F)
- Relative humidity from 10% to 100%, including condensation
- Atmospheric pressure from 50 to 110 kPa.

1.4 Storage

When not in use, store in a clean, dry environment with temperature between 32°F and 120°F.
If the Battery Status Light is red, it is recommended that the 5803 Base be stored with the power cord plugged into a proper AC receptacle with the ON/OFF Power-switch “ON” for a minimum of three (3) hours to ensure that the batteries are fully charged. If the red Battery Status lamp remains illuminated after this time, do not operate the table under battery power and call for service. Prior to use it is also recommended that the 5803 Base be plugged into a proper AC receptacle with the ON/OFF switch in the “ON” position for a minimum of three (3) hours to ensure that the batteries are fully charged.

2.0 CONTROLS IDENTIFICATION

2.1 Major Component Identification

The 5803 Base is designed to hold a Table Top that will provide a patient support that is free of any obstructions that might compete for space with the C-Arm. The major components of the 5803 Advanced Control Base are identified in the following figures.

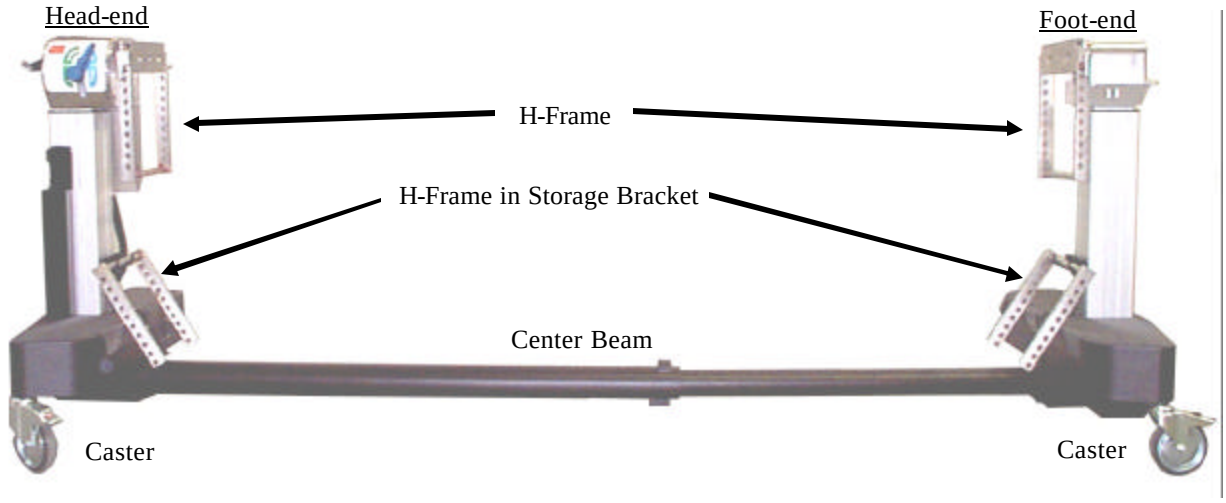


Figure 1- 5803 Base - Side View

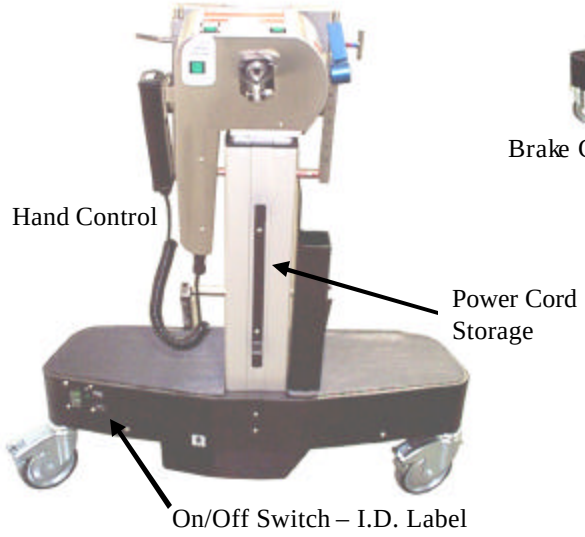


Figure 2 - 5803 Base – Head-end View

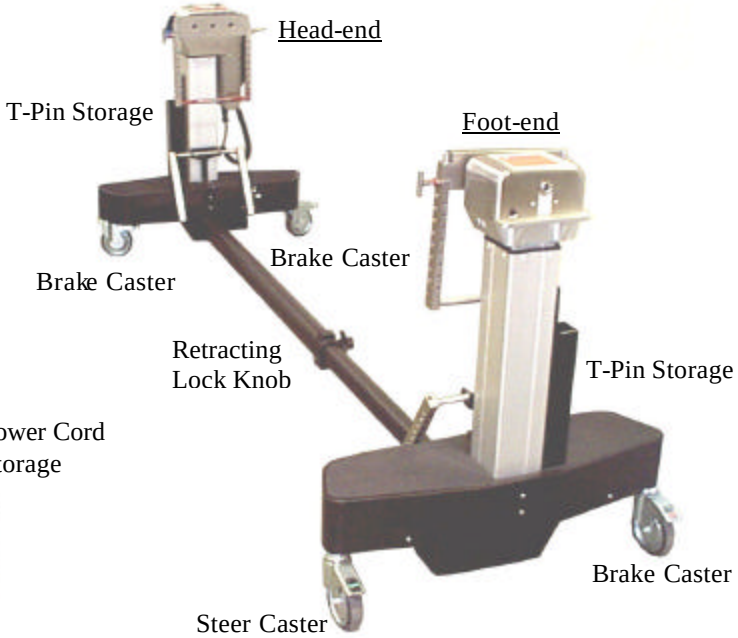


Figure 3 - 5803 Base – View from Foot-end

2.2 Base Orientation

The control end of the Base is considered the Head End, and the opposite end is the Foot End. The right side of the Base is the side to the operator's right when standing at the Head End looking toward the Foot End Base. The general nomenclature and orientation of the Table is shown in Figure 1. Refer to the appropriate User Guide supplied with each Table Top for Table Top Component Identification and more detailed information about the use of each Table Top.

2.3 Model Number and Serial Number

The Model Number and Serial Number are printed on the Identification Label located at the Head End Base. This label is located to the right of the ON/OFF switch as shown below.

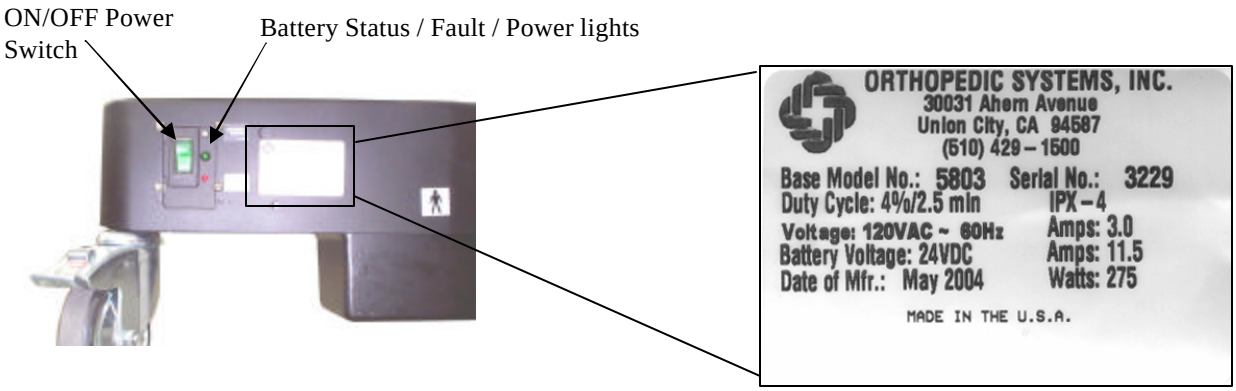


Figure 4. Head End; ON/OFF Switch – Serial Number Label

3.0 INSPECTION

3.1 Acceptance & Transfer

Upon receipt of your 5803 Base, remove any protective wrapping or packaging. Visually inspect all surfaces for freight damage. Check each caster for proper rolling operation.

NOTE: *Any freight damage must be reported to the freight carrier immediately upon delivery. It is the responsibility of the recipient to make freight damage claims.*

1. Verify receipt of the Completeness and Test Report provided with each 5803 Base.

2. Read the Model/Serial Number Identification Label found at the Pedestal End of the base (See Figure 2.) to confirm the serial number and the input power requirements.

3. Place the 5803 Base in an area with at least 4 feet of clearance on all sides.

4. Perform Pre-Operational function check; see Section 4.0.

3.2 Preoperative

1. Perform Pre-Operational function check; see Section 4.0.

3.3 Postoperative

1. Perform Pre-Operational function check; see Section 4.0.

3.4 Annually

1. Perform Pre-Operational function check; see Section 4.0. Thoroughly clean the table as described in CLEANING, Section 7.0. Pay special attention to the cleanliness of the controls as excessive soil could affect function.

2. Inspect the power cord for cuts in the insulation or damage to the connector.

3. Check to see that all fasteners are tight.

4. Check the operation and security of the Brake Casters with and without a load in place.

5. Perform complete Preventative Maintenance Checklist.
   Contact OSI Technical Service for a complete Preventative Maintenance Checklist.

4.0 PRE-OPERATIONAL FUNCTION CHECK

After reading the Basic Operation Section, perform all the steps in this procedure. For a complete definition of reference terms used, please refer to the GLOSSARY OF TERMS Section.

1. Plug in the Hand Control cable-connector into the receptacle located under the head-end.

2. Plug the power cord into a “hospital grade” power outlet and flip the main “ON/OFF” Power Switch to "ON". Verify the switch illuminates; this indicates power is applied to the table.

3. In succession, press and hold each of the six buttons on Hand Control and confirm the operation of the following functions:
   - 3.1. “TABLE UP”
   - 3.2. “TABLE DOWN”
   - 3.3. “TRENDELENBURG”
   - 3.4. “REVERSE TRENDELENBURG”
   - 3.5. “TILT LEFT”
   - 3.6. “TILT RIGHT”
   - 3.7. Engage the Rotation Safety Lock (switch to on) and the 180°- Rotation Locks (blue handle clockwise, indicator light illuminates).
   - 3.8. Release the Rotation Safety and 180° Rotation locks.
   - 3.9. Confirm Head-end and Foot-end Crossbars are “unlocked” by rotating each one complete revolution.
   - 3.10. Re-engage both the Rotation Safety and 180° Rotation locks.
   - 3.11. Confirm Head-end and Foot-end Crossbars are “locked”; Both Crossbars firmly resist rotation.
   - 3.12. Using Hand Control, press and hold “Tilt Left” button to end of travel. Confirm the Foot-end Crossbar rotates freely.
   - 3.13. Repeat the same when “Tilt Right” is operated.

Report any malfunction to your OSI representative immediately.

5.0 BASIC OPERATION

The 5803 Base can be operated on AC or DC power. For AC power plug the AC Power Cord into the proper AC receptacle depending on the voltage requirements of the 5803 Base. Refer to the label at the Head End Base for input voltage requirements. The 5803 Base can also be operated on internal battery power with the Power Cord removed or not plugged into an AC receptacle. Turn the ON/OFF Power Switch to "ON". A green, "Power On" light, next to the switch indicates that the power is ON. The ON/OFF Power Switch is a combination power switch, circuit breaker. To reset this circuit breaker, turn the ON/OFF Power Switch OFF and back ON.

NOTE: *When the power cord is removed and/or not plugged into an AC outlet, the protective earthing ground stud near the power entry module must be connected to a proper earth ground during use.*

5.1 Casters

Each Base is equipped with three (3) Locking Casters and one (1) Steer Caster. The Steer Caster functions to allow the Table to roll along a straight path when pushed from the Head End. The Steer Caster is located on the right side of the Foot End. The Steer Caster has a green label marked "Steer". To lock the Table Base securely in place, it is necessary to engage the Lock on each of the four (4) Casters.

To lock a Caster Lock, step on the Lock Tab until you hear an audible click and the Tab remains in the down or locked position. To unlock the Caster, push the Unlock Button. When the Unlock Button is pressed, the Tab will click back to the original unlocked position.

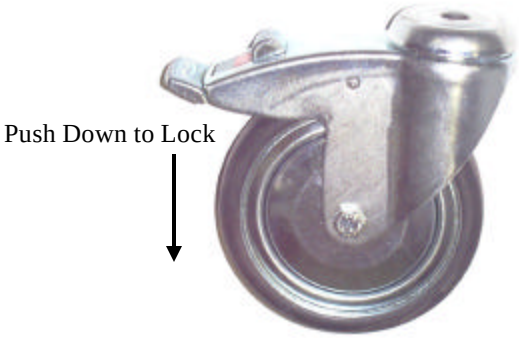


Figure 5 - Unlocked Caster

Figure 6 - Locked Caster

5.2 Control Operation

The 5803 Base is controlled by means of a Hand Control that operates the Up/Down, Lateral Tilt and Trendelenburg / Reverse-Trendelenburg movements of the table. See Hand Control Section.

The Head End of the 5803 Advanced Control Base is equipped with three Indicator Lights. These lights are: 1) 180° Rotation Lock Indicator Light, 2) Tilt Drive Status Light and 3) Rotation Safety Lock Indicator Light. Verify that the Rotation Safety Lock switch is in the ON position and the 180° Rotation Lock Lever is in the locked position. These indicator lights are shown in Figure 7. Under normal operation, the ON/OFF power switch light and battery status light should be lit green and the Fault light should be dark.

NOTE: *If the Fault Light is lit, the 5803 Base has detected a fault. Determine fault before use.*

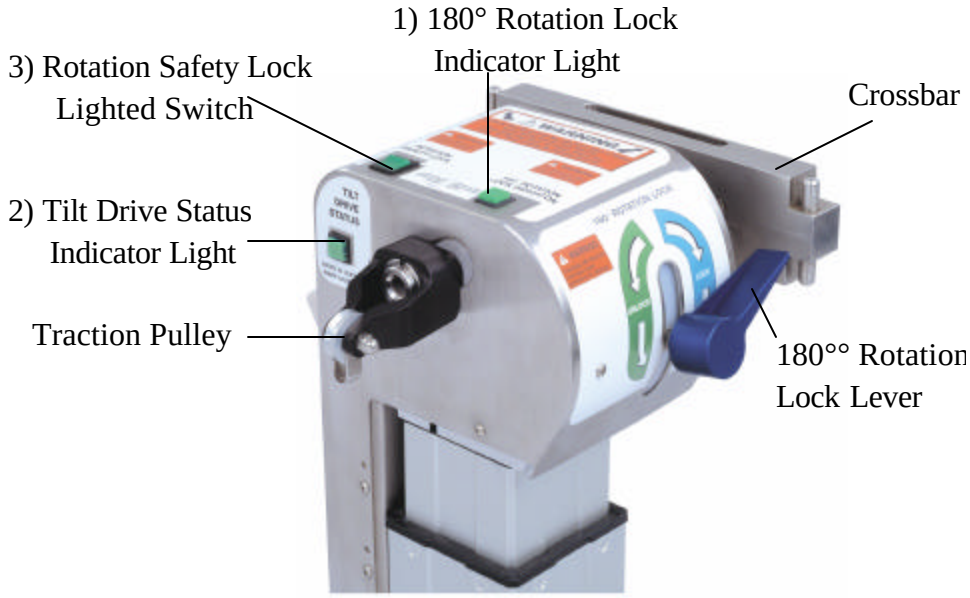


Figure 7- Head-end Pivot Assembly, Indicator Lights and Controls

5.3 Rotation Safety Lock

The Rotation Safety Lock Lighted Switch locks out the 180° Rotation function. This feature is designed to prevent unintended rotation of the Table Top. When the Rotation Safety Lock Lighted Switch is illuminated, the Table Top can still be Laterally Tilted by pressing the Left or Right Lateral Tilt button on the Hand Control. The Rotation Safety Lock Switch should be turned off only when a 180° rotation is to be performed. If the Rotation Safety Lock Switch is not illuminated, press the rocker switch to the ON position.

5.4 180°- Rotation Lock Indicator

When illuminated, the 180° Rotation Lock Indicator Light indicates the 180° Rotation Lock is engaged and the table cannot be rotated 180°. If the 180° Rotation Lock Indicator is not illuminated, rotate the Rotation Lock Lever clockwise until the light is illuminated.

NOTE: *If a 180° rotation is to be performed, the Rotation Lock Lever should be rotated counterclockwise approximately one half rotation past the point that the Rotation Lock Indicator Light goes out. Rotating the Lock Lever to this point lessens the drag of the friction control, thereby allowing the Table Tops to rotate more freely during the rotation. If even less friction is desired, the Lock Lever may be rotated further counterclockwise, as necessary.*

After the rotation is complete, rotate the Rotation Lock Lever clockwise until the Rotation Lock Indicator Light is illuminated.

NOTE: *When the Rotation Lock Indicator Light is not illuminated, the Table Top is unlocked regardless of how much the Lock Lever has been rotated clockwise or counterclockwise. After a 180° Rotation, always rotate the Lock Lever until the Rotation Lock Indicator Light is illuminated.*

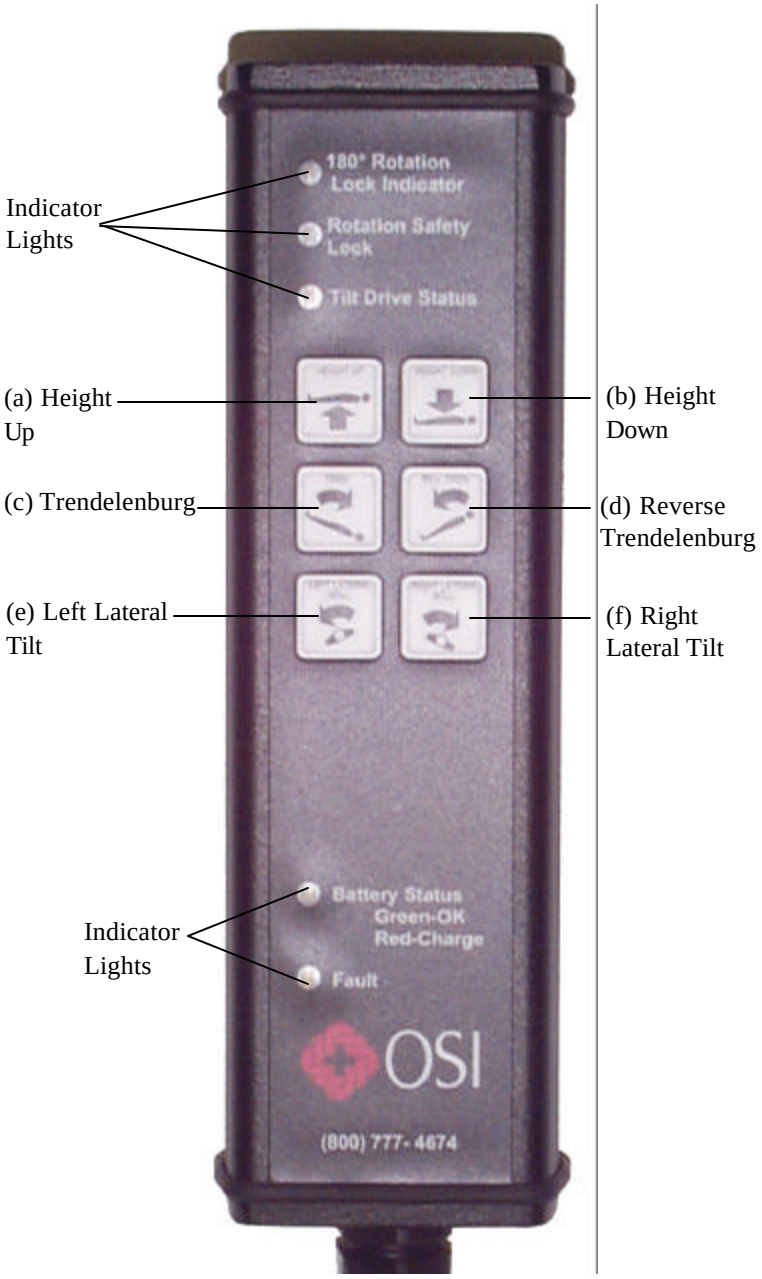
5.5 Tilt Drive Status Indicator

The Tilt Drive Status Indicator Light is illuminated when the powered lateral Tilt Drive mechanism is in the center position of the +/- 25- lateral tilt range. If the Tilt Drive Status Indicator is not illuminated, operate the lateral tilt function using the Hand Control in the appropriate direction until the indicator is illuminated. The Head-end Crossbar should be horizontal when the Tilt Drive Status Indicator is illuminated. If the Head-end Crossbar is not horizontal, the internal power tilt mechanism is out of synchronization with the Crossbar. Refer to Synchronizing the Lateral Tilt Function to reset this function.

5.6 Hand Control Module

Each 5803 Base is equipped with a push-button hand-held pendant control module (Hand Control), which is stored on a bracket at the Head-end. The Hand Control allows the operator to raise, lower, Trendelenburg, reverse-Trendelenburg, and laterally tilt any attached table top. The selected function will continue to operate until the button on the Hand Control is released.

NOTE: *It is recommended that a Table Top always be connected between the Head-end and Foot-ends of the base when operating the powered controls.*



To Raise the Table, depress the Height Up Button (a) on the left side of the control with the arrow that points in the "up" direction.

To Lower the Table, depress the Height Down Button (b) on the right side of the control with the arrow that points in the "down" direction.

To Trendelenburg the Table, depress the button on the left with the arrow that indicates Foot Up (c) until the desired Trendelenburg angle is achieved. This lowers the Head End Column and raises the Foot End Column simultaneously. If the Table is in a fully lowered position, only the Foot End will rise to achieve the desired Trendelenburg angle.

To Reverse Trendelenburg the Table, depress the button on the right with the arrow that indicates Foot Down (d) until the desired Reverse Trendelenburg angle is achieved. This raises the Head End Column and lowers the Foot End Column simultaneously. If the Table is in a fully raised position, only the Foot End will lower to achieve the proper Reverse Trendelenburg angle.

To Laterally Tilt To The Left, depress the Left Tilt Button (e) on the left side of the control.

To Laterally Tilt To The Right, depress the Right Tilt Button (f) on the right side of the control.

NOTE: *In the event a large Traction Arc 5855-13 is placed on the Base, the Tilt function has been made inoperable. However in the event a small Traction Arc 5848-191 is placed on the base, the Tilt Function is still operable.*

Battery Status Light:

- Green = OK
- Red = Needs Recharge.

Fault Indicator Light:

- Electrical Fault = turn Power Switch OFF; disconnect Power Cord.

To unplug and re-attach the Hand Control:
At the end of the Hand Control coiled-cord is a black connector-plug. Unscrew the connector locking-nut and pull the connector straight out of the socket. To re-attach, insert the connector into the socket with the notches on connector lining up with the slots on the socket. The connector locking-nut must be tightened around the socket to insure proper connection.

5.7 Synchronizing The Lateral Tilt Function

Normally, the Head-end Crossbar and left-or-right lateral Tilt Drive-mechanism are synchronized so that the Tilt Drive is in the middle of its travel range when the Crossbar is level. It is possible for the Crossbar and Tilt Drive to become unsynchronized if the Crossbar is rotated manually. Also, the Head-end Crossbar and Foot-end Crossbar can become unsynchronized (not at the same tilt angle) if a Crossbar is rotated manually or the 5803 Base is operated without a Table Top in place. The Crossbars must be synchronized to each other, as well as to the Tilt Drive-mechanism.

NOTE: *Never attempt to attach a Table Top to the 5803 Base if the Head-end and Foot-end Crossbars are not horizontal in all planes. Doing so may cause damage to the Table Top or the Tilt Drive System.*

To verify synchronize of the Tilt Drive and Head-end Crossbar:

1. Confirm that the 180° Rotation Lock is engaged.
2. Confirm that the Rotation Safety Lock is engaged.
3. Use the Hand Control "Lateral Roll" buttons to rotate the Head-end Crossbar until it is level.
4. Confirm the Tilt Drive Status Indicator Light illuminates (on Hand Control or Head-end Pivot Assembly) indicating proper synchronization.
   - If the Light will not illuminate, the Head-end Crossbar and Tilt Drive are not synchronized.
   - If the Head End Crossbar will not level using the Hand Control "Lateral Roll" buttons, then the Head-end Crossbar and Tilt Drive are not synchronized.

To re-synchronize the Tilt Drive and Head End Crossbar:

1. Turn Power Switch "ON", the switch illuminates green.
2. Turn the Rotation Safety Lock "OFF". The illuminated switch goes dark.
   Caution *– this allows the Foot-end Crossbar to rotate (swing) freely if no Table Top is attached.*
3. Rotate the 180° Rotation Lock-handle counter-clockwise until it is disengaged; the illuminated indicator light goes dark.
   Caution *– this allows the Table Top, if attached, or Head-end Crossbar to rotate (swing) freely.*
4. The Tilt Drive mechanism will automatically return to the middle of its range. While this occurs, you will hear the Tilt Motor (at head-end) running and the Table Top, if attached, may rotate slightly (if at all). When the Tilt Motor stops running, verify the Tilt Drive Status light illuminates, confirming the Tilt Drive is in the middle of its travel range. Verify that the Head and Foot Crossbars are level.

5. If no Table Top is attached:
   5.1. Manually level the Head End Crossbar.
   5.2. Manually level the Foot End Crossbar
6. Turn the Rotation Safety Lock Switch "ON"; the switch should illuminate.
7. Rotate the 180° Rotation Lock Handle clockwise until it is engaged; the Indicator Light should illuminate.
8. The Tilt Drive is now synchronized to the Crossbars, and the Crossbars are synchronized to each other.

5.8 Tabletop Coupling Procedure

The Modular Table Tops may be interchanged and coupled to the 5803 Base as needed to provide flexibility and specific procedural capability. Position the 5803 Base and engage all four Caster Locks. Only Table Tops with Gimbals may be used with the 5803 Base.

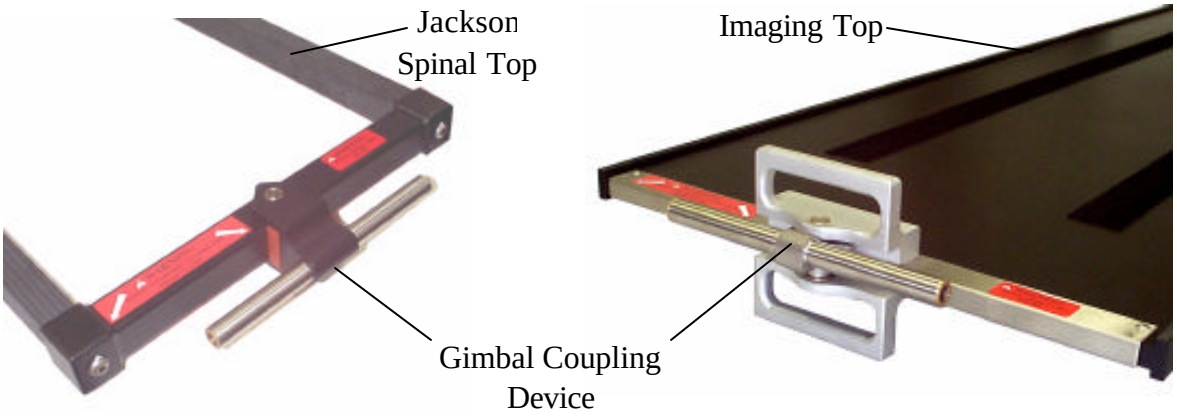


Figure 9- Jackson Spinal Top & Imaging Top with Gimbal Mounting Assemblies.

NOTE: *Verify that the Jackson Spinal Top or the Imaging Top being used has Gimbals. Never attach a Jackson Spinal Top or Imaging Top to the 5803 Base that does not have Gimbals.*

Figure 10- T-Pin Assembly

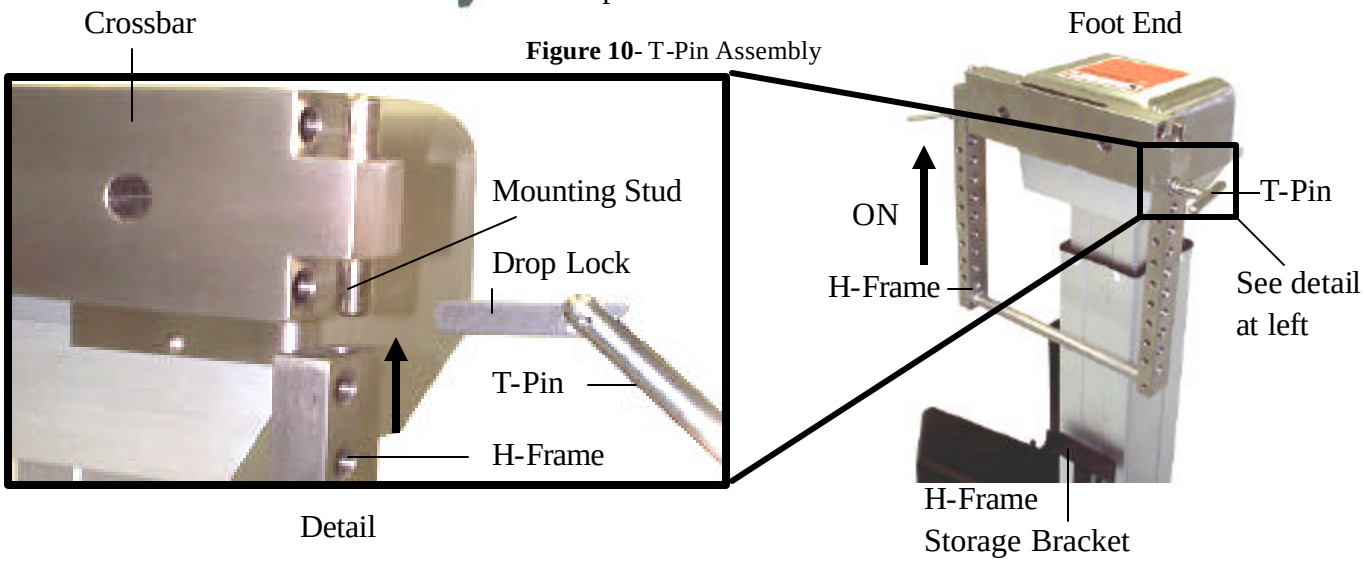


Figure 11- H-Frame Installed - Foot End Column

The following procedure assumes the Foot End and Head End Columns do not have Table Tops coupled in place. The coupling procedure is as follows:

1. Remove the H-Frame from the H-Frame Storage Bracket located on the Head End Column. Install the H-Frame to Head End Crossbar and secure with a T-Pin. The T-Pins are stored in the T-Pin Quiver located adjacent to each column. The T-Pin must extend completely through both sides of the H-Frame and the Drop Lock should be in sight and pivot freely (See Figure 12). The Head End Crossbar is attached to a Sliding Assembly that adjusts superiorly and inferiorly to accommodate Trendelenburg and Reverse Trendelenburg. Fully retract the Head End H-Frame against the Head End Column.

NOTE: *If the H-Frame is not aligned with the mounting studs, it may bind. Do not force it. Lift the H-Frame off and repeat until it mounts easily.*

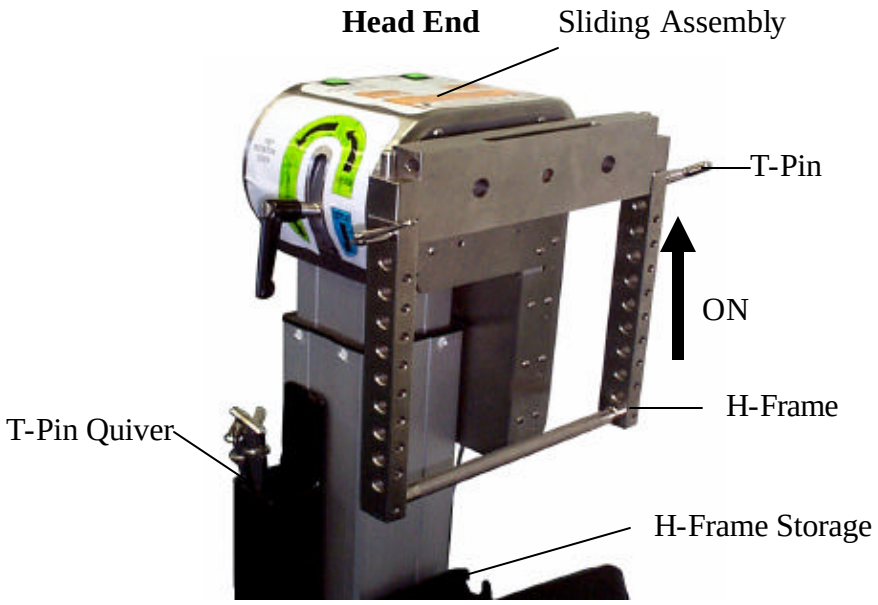


Figure 12- Head-end Pivot Assembly, H-Frame Installed

NOTE: *Two people are required to complete the following sequence.*

2. Select the appropriate mounting-hole position on the H-Frame to support the tabletop. Hole selection will differ depending on the top selected and the procedure that would be performed. Align the mounting tube with the hole in the H-frame and push the T-pin completely through the H-frame and mounting tube on the foot end.

NOTE: *Verify that the T-pin is inserted through the H-frame, passes completely through the table mounting tube, and through the opposite side of the H-frame and the T-pin drop lock is in sight and pivots freely. Failure may result in the tabletop being dropped.*

3. To couple the Head End of the Table Top, slide the H-Frame and Crossbar away from the Foot End as necessary to accommodate the length of the Table Top. Align the holes in the Head End H-Frame and the Table Coupling Device. Push the T-Pin completely through both sides of the H-Frame and the Coupling Device making certain that the Drop Lock is in sight and pivots freely. The Head End and the Foot End of the Table Top are normally coupled at the same hole in the H-Frame. The only exception is when extreme Trendelenburg is needed.

NOTE: *Prior to Rotation, verify that all Table Coupling Devices and H-Frames are properly installed and the T-Pins pass completely through the H-Frames and Crossbars with the Drop Lock in sight and pivots freely. Two (2) T-pins and Drop Locks should be visible and checked at each end of the Table. Please read more about this process in the appropriate top-specific User Guide.*

5.9 Tabletop Coupling Procedure With Top In Place

When one Table Top is already coupled to the Base and you are coupling a second Top in order to change Tops or facilitate a 180° tabletop rotation, the slide mechanism of the Head End Sliding Assembly will be held in a fixed position due to the fixed length of the first Top. This requires a different procedure to couple the second Top.

With two people holding the second Top,

1. Attach the Head End H-frame as described above to the Table Top at the desired Mounting Hole.
2. Position the second Table Top and attach the Head End H-Frame to the Head End Crossbar.
3. Attach the Foot End H-Frame to the Foot End Crossbar surrounding the Table Top Coupling Device.
4. Connect the Table Top Coupling Device to the Foot End H-Frame at the desired mounting hole. Verify that the Table Top is coupled at the desired height at the Head End.

5.10 Rotation Procedures

The 5803 Base provides the capability of rotating a tabletop 180°. This is a manually activated function.

NOTE: At least two people are required to hold and control the rotating motion of the Table Tops. Prior to rotation, verify that all tabletop coupling devices and H-frames are properly installed; the T-pins pass completely through the H-frames and crossbars with the drop locks in sight and able to pivot freely. Four (4) T-pins and drop locks should be visible and checked at each end of the Table.

5.11 Rotation Lock System

The 5803 Base is designed to engage the Rotation Safety Lock automatically whenever the ON/OFF Power switch is turned "OFF". Automatic Rotation Safety Lock engagement ensures that the Table Top cannot unintentionally rotate laterally without power.

5.12 Rotation Procedure For The 5803 Base

With an attendant at the Head End of the Table:

1. Release the 180° Rotation Lock by rotating the lever *counterclockwise* until the 180° Rotation Lock Indicator Light goes out.
2. Advise the attendants holding the tabletops that the Rotation Safety Lock is about to be released.
3. Release the Rotation Safety Lock by pressing the rocker switch to the OFF position. Observe that the Indicator Light goes out.
4. Rotate the tabletops.

NOTE: *The attendant performing the Rotation must rotate the tabletops 180° toward himself or herself without stopping until the complete 180° rotation is achieved.*
After the Rotation:

1. Immediately engage the Rotation Safety Lock by pressing the rocker switch to the ON position and observe that the Indicator Light is illuminated.
2. Lock the 180° Rotation Lock by rotating the Lever *clockwise* until the 180° Rotation Lock Indicator Light is illuminated.

NOTE: *The attendant performing the Rotation may now release the Table Tops.*

5.13 Retracting The Base For Storage

The 5803 Base retracts from 120 inches to 73-1/2 inches for storage.

To retract the Base:

1. Lock the Head End Casters and unlock the Foot End Casters.
2. Loosen the Retracting Locking Knob found on the Base.
   NOTE**:** *This knob will become completely separated from the Base if turned too far counter clockwise.*
3. Push the Foot End of the Base toward the Head End of the Base until the Foot End is retracted to its minimum length.
4. Tighten the Locking Knob.
5. Unplug the Power Cord and store it on the Cord Wrap for transfer of the Base. The Base and Table Top are now ready for storage.

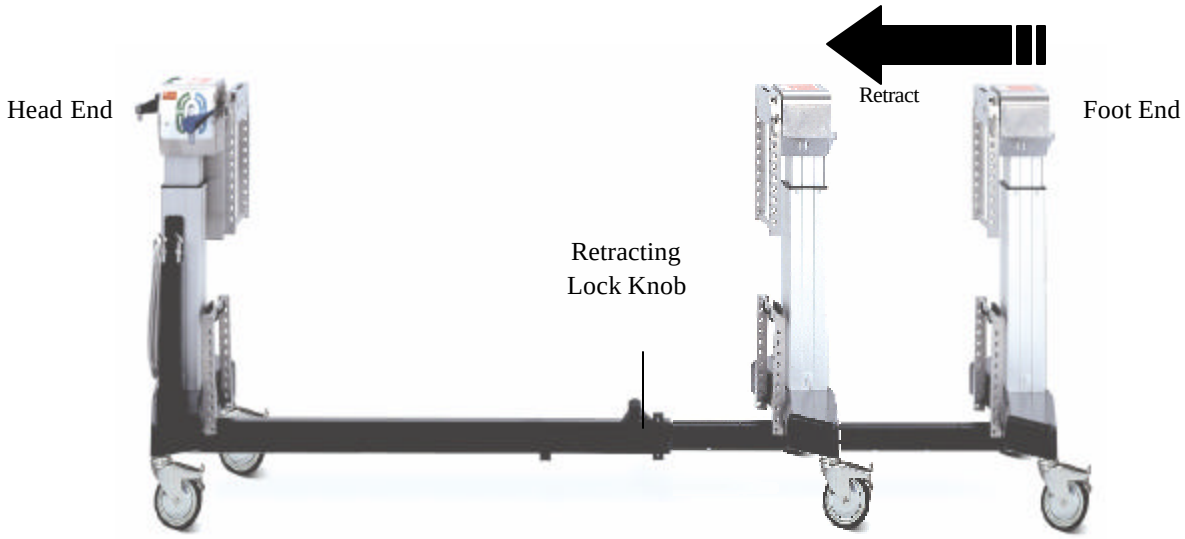


Figure 13- Retracting the MTS Base

6.0 CLEANING and MAINTENANCE

6.1 Cleaning and Disinfecting

NOTE: *The Head and Foot Columns of all the Table Bases are not sealed, therefore:*

- *Never pour any liquid directly onto the table.*
- *Never allow any liquid to enter the extensile joint of the columns.*
- *Never subject the 5803 Table-base to an equipment washing machine.*

Failure to thoroughly dry any surface after cleaning and disinfecting may result in rust.
It is important to dry the Base to prevent rusting. Rust formation can prematurely shorten the useful life expectancy of the 5803 Base.

USE OF IODOPHORS WILL CAUSE STAINING.

Table Exterior:

- Exterior surface should be regularly wiped clean with a mild detergent solution and wiped dry with a soft lint-free cloth.
- Care should be taken to avoid exposing the table to excessive moisture. Flooding, fogging or steam cleaning is not recommended and will void any warranty.
- Blood or other fluids, etc., if allowed to remain on the table for a long period of time, will require special cleaning to remove. A 5% acetic acid solution or white vinegar and water solution is especially good for this purpose.
- Cleaning with a good commercial cleaning compound, such as Stainless Steel Magic or Acme White Finish, and then buffing the surface by hand can correct staining and discoloration of plated or stainless steel surfaces.
- To disinfect exterior surface use a quaternary ammonium or similar type disinfectant compound according to manufacturer's directions for use. Wipe dry with a soft lint-free cloth.
- Casters should be cleaned and disinfected in the same manner as table exterior.

6.2 Lubrication

Table Exterior:
Following a thorough cleaning and decontamination of the table, silicone lubricant spray may be used on most of the exposed inner head and foot columns and inner retractable beam. No other lubrication is necessary.

Table Interior:
All of the internal moving parts of the 5803 Base receive factory lubrication which, under normal use, provides lubrication for the life of the equipment.

6.3 Preventative Maintenance

Contact OSI Technical Service for a complete Preventative Maintenance Checklist.

7.0 THE ELECTRICAL SYSTEM

7.1 Description

The 5803 Base uses an external AC power source or internal, rechargeable, battery power for operation. It uses AC power when plugged into a proper AC receptacle and the ON/OFF Power-switch is in the "ON" position. When not plugged in, or AC power is lost, the 5803 Base will automatically switch over to internal battery power. The batteries are automatically recharged whenever the 5803 Base is plugged into an AC power source and the ON/OFF power-switch is in the "ON" position. Located next to the ON/OFF power-switch on the Head End base (see Figure 4) is the Power On, Fault, and Battery Status lights.

7.2 Power Cord

The table is equipped with a standard EIC power cord with the appropriate 120 VAC hospital grade connector (230 VAC versions do not include the power connector).

7.3 ON/OFF Power/Circuit-Breaker Switch

An ON/OFF Main Power-switch is mounted at the head end of the base. This switch also serves as a circuit breaker and in the event of an overload condition this switch will trip off. To reset, push to the "OFF" position and then the "ON" position. Next to it a green "Power On" light illuminates indicating that the table power is on.

NOTE: *Determine the source of the overload prior to resetting this switch.*

7.4 Power ON / Fault / Battery Status Lights

Next to the ON/OFF Power-switch is a small panel of three lights:

- Green = Power ON (AC power or battery power).
- Red = Fault Light (Electrical fault, determine source of fault prior to using table).
- White = Battery Status.
    - When illuminated Green = installed properly and charged
    - When illuminated Red = recharging required

7.5 Battery Recharging

The batteries in the 5803 Base are automatically charged whenever the table is in an operational condition (plugged into AC power source and ON/OFF Power-switch in the "ON" position). No additional procedures are needed to assure maintenance of the batteries. The "Battery Status" lamp, next to the ON/OFF Power-switch on the head end base casting, indicates battery charge condition. If lit, the red "Battery Status" lamp indicates that the batteries require recharging and the table must be plugged into an AC outlet. If the "Battery Status" lamp remains illuminated red after about three (3) hours, do not attempt to operate the base under battery power and call for service (the 5803 Base should remain functional under AC power). It is recommended that, prior to use, the 5803 Base be plugged into a proper AC receptacle with the ON/OFF switch in the "ON" position for a minimum of three (3) hours to ensure that the batteries are fully charged.

8.0 TROUBLESHOOTING

8.1 Electrical System

In the advent of a table malfunction, the first item to investigate is the input power. Be certain that the Power Cord is plugged into a live electrical outlet and the Power Switch is switched ON. A green "Power On" light illuminates indicates this.

WARNING

Before removing any sheet metal covers the table must be turned off and unplugged. Dangerous high voltage may be present in the circuitry under the covers. Only trained technicians should perform this task.

AVERTISSANT

Enlever de Befor n'importe quel métal de drap couvre la table doit être tournée de et débranché. Dangereux à haute tension peut être actuel dans le circutry sous les couvertures. Technitions seulement entraîné doit exécuter cette tâche.

SYMPTOM	INSPECT	ACTION
No column function either end.	Check power. Check that circuit breaker (light is green). Check Hand Control Module and cord. Check electrical connector at base of Head or Foot End Column.	Plug in. Reset breaker, turn on. Plug in connector.
No column function Head End	Check Hand Control. Check electrical connector at base of Head End Column.	Plug in connector.
No column function Foot End	Check Hand Control Module and cord. Check electrical connector at the base of Foot End Column.	Plug in connector.
Rotation friction control won't stop Rotation-Head Or Foot End.	Tighten lever to Max. Check brake band.	Adjust brake tension. Adjust handle to proper range. Replace if necessary.
Caster won't lock/unlock	Check Caster for damage.	Replace Caster.

FUNCTION GUIDE		
Command:	Result:	If not, determine if
(Hand Controller) Table Up.	Both columns up.	Table power is off. Power to PC board is not connected. Hand controller is non-operative, or not plugged in. Cable from PC board to column is not connected, or is faulty. If none of these are the problem then the column or the PC board is faulty.
Table Down.	Both columns down.	Same as for Table Up.
Trendelenburg.	Head column down and foot column up.	Same as for Table Up.
Reverse Trendelenburg.	Foot column down and head column up.	Same as for Table Up.
Tilt left or right w/Rotation Safety Lock switch off.	Tilt motor drives	Table power is off, power supply is not operating correctly, power to PC board is not connected, hand controller is non-operative, hand controller is not plugged in, PC board is non-operative, cabling is not connected or is faulty, tilt motor is faulty, brake on sensor is closed, brake on sense wire is shorted, either limit switch is faulty, either limit switch is open, limit switch wiring is disconnected.
Rotation Safety Lock switch off.	Brake releases.	Table power is off. Power to PC board is not connected. Power supply is not operating. Cable from PC board to column is not connected. Cable to column is faulty. Brake off switch is faulty. Wire connection to switch is faulty. Traction arc switch closed. Traction arc switch wiring shorted. Limit switch faulty. Limit switch operating mechanical error, limit.
Rotation Safety Lock switch on.	Brake engages.	See rocker switch off. Also verify switch, wiring, and mounting of brake on sensor if brake is weak, brake force adjustment is incorrect.
Tilt L or R w/ Rotation Safety Lock switch on.	Brake releases; tilt motor drives.	Same as tilt with rocker switch off. Additionally: brake motor faulty, wiring not connected.
Release Tilt button.	Tilt motor ceases; brake engages.	Hand controller faulty, PC board faulty. Same as for tilt w/rocker on.
Release button. (all functions except Tilt when rocker switch is on).	Immediate cessation of above. No additional function.	Hand controller faulty, PC board faulty.

Command:	Result:	If not, determine if:
Traction arc switch closed. Tilt left or right.	Tilt motor disabled, brake motor disabled.	Faulty switch, broken wiring connection, switch adjustment incorrect, PC board faulty.
Rotation Safety Lock switch off.	Brake motor disabled.	Same.
Handle Loose.	Tilt motor drives until tilt home LED lights.	Power off, power to PC board not connected, power supply non-op, PC board non-op, cable from PC board to tilt motor not connected, tilt motor non-op, home sensor faulty, home sensor wiring shorted, sensor misadjusted, 1/r sensor faulty, 1/r sensor wiring shorted or disconnected, sensor misadjusted, lock sensor faulty, lock sensor wiring disconnected, traction arc switch closed, traction arc switch wiring shorted.
Rotation Safety Lock switch on. Foot crossbar tilted left or right.	Tilt left or right DISABLED.	Tilt left or right limit switch faulty, wiring disconnected.
Rotation Safety Lock off. Power down.	Brake engages. LED turns on for 15-25 seconds later, LED off.	PC board faulty, motor faulty, wring to motor disconnected, LED faulty; wiring disconnected. PC board faulty. No battery power.

9.0 REMOVAL and REPLACEMENT of COMPONENTS

9.1 Head-end Cover

1. Switch off the table at the circuit breaker and disconnect the power cord from the source.
2. Remove the foot-end base covers.
3. Disconnect the negative wires at the battery terminals.
4. Remove 1” external retaining ring. Remove Traction Pulley Assembly.
5. Remove 180° Rotation Lock handle by rotating it counterclockwise until it is free.
6. Remove the cover screws on both sides of the cover except the lower screws.
7. Remove lower screws on both sides of the cover, and remove head end cover inside panel.
8. *Carefully* slide the cover away from the base, along the tilt axis.
   Caution:
   Wires still connect the switches and lights on the cover to the base. Lifting out the 180° Rotation Lock Indicator light will help prevent damage.

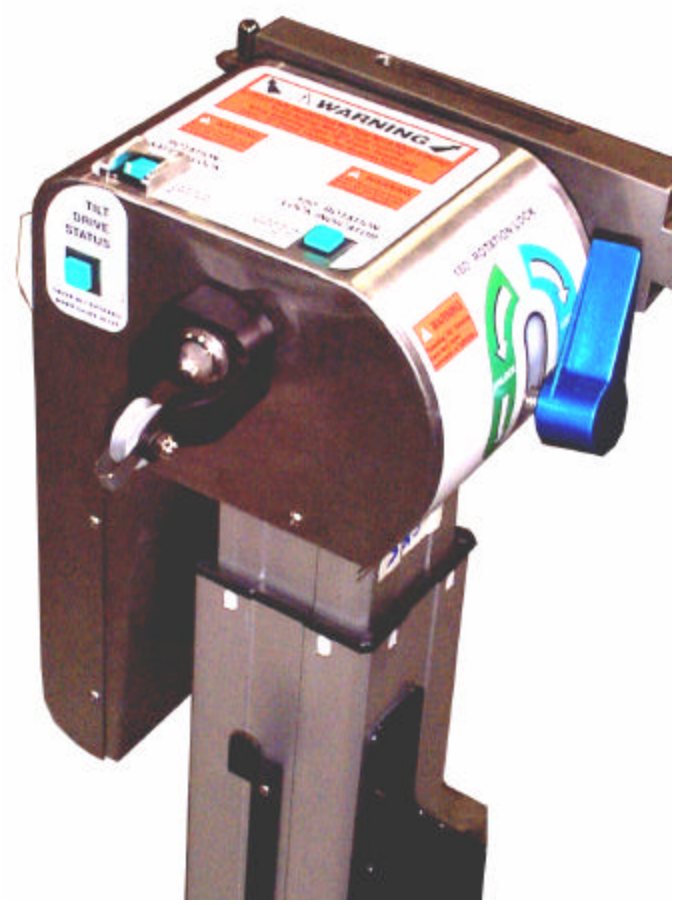


Figure 14: Head Cover Removal

9.2 Foot-end Cover

1. Switch off the table at the circuit breaker and disconnect the power cord from the source.
2. Remove the foot-end base covers.
3. Disconnect the negative wires at the battery terminals.
4. Remove the foot-end cover screws.
5. Carefully lift foot-end cover up and off.

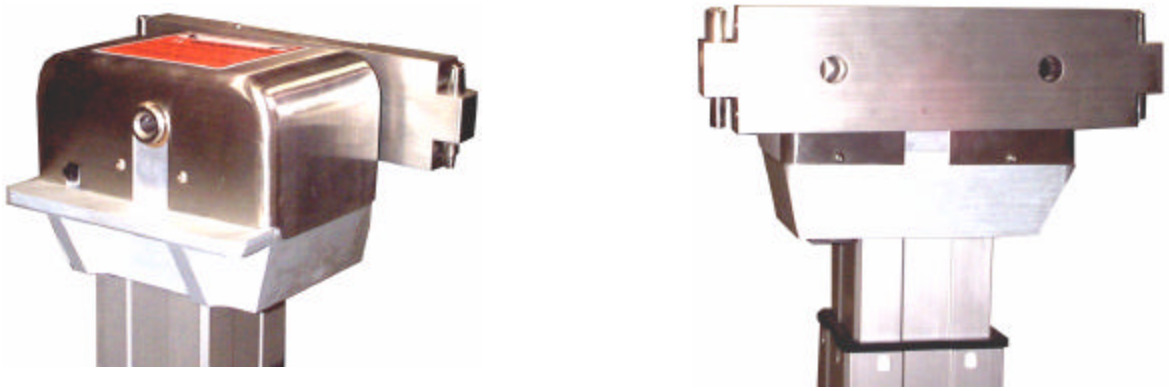


Figure 15: Foot Cover Removal

9.3 Hand Control Module

1. Switch off the table at the circuit breaker and disconnect the power cord from the source.
2. Unscrew Hand Control cord-connector from base receptacle.
3. Unplug Hand Control cord connector from the base.

9.4 Batteries

WARNING

Improperly installed batteries can leak, causing equipment damage or injury. See photo below to assure correct installation of replacement batteries.

AVERTISSANT

Les piles incorrectement installées peuvent fuir, les dommages d'équipement causant ou la blessure. Voir que la photo assure l'installation exacte de piles de remplacement.

- **Rechargeable lead-acid batteries contain toxic materials. Batteries should be fully discharged prior to handling, or the terminals should be isolated to prevent accidental discharge.**

- **Batteries contain sulfuric acid. In the event of a leak in the battery or fire, dilute spilled fluid with water. In case of skin contact, wash areas with water. In the event of eye contact, flush eyes with water for 15 minutes and consult a physician immediately.**

- **Batteries should only be replaced with OSI approved parts. Contact OSI to obtain correct replacement batteries.**

- **Incorrectly connected batteries can cause damage to equipment or injury. Bridging (shorting) of battery terminals can cause explosion of the battery or fire.**

- **Do not attempt to connect AC power to the 5803 Base until correct battery connection is confirmed.**

- **Always dispose of batteries properly. Do not incinerate batteries. Do not place rechargeable 12V batteries into a metal trashcan, toolbox, drawer or parts bin.**

- **Always take the following precautions when removing the battery compartment covers:**
  1. Remove metal jewelry and wristwatches when in proximity to batteries.
  2. Always cover at least one terminal of each battery with insulating material if connectors are removed.
  3. Use caution when employing metal tools in proximity to batteries. Metal tools create circuit bridges (electrical shorts) upon contact. When possible, use tools with insulated handles and ends.
  4. Never place anything on top of batteries, whether batteries are mounted or removed from product.

Charging and Inspection:
Charge for minimum three (3) hours (Power Cord plugged into power source and ON/OFF Power-switch "ON"). If battery fails to hold a charge it should be replaced. Replace only with identical type and size battery. Replace both batteries at the same time. Batteries should be replaced once every five (5) years. Whenever the battery cover is opened, check battery for signs of corrosion. Battery terminals should be clean and free from corrosion, oil, grease, dirt, or other contaminants.
Battery Type: Gel-cell LED acid batteries, 12 Volt, 12 Amp-hour rating.
Battery Size: 150mm long, 98mm wide, 100mm deep.
Battery OSI ordering number: NV0801

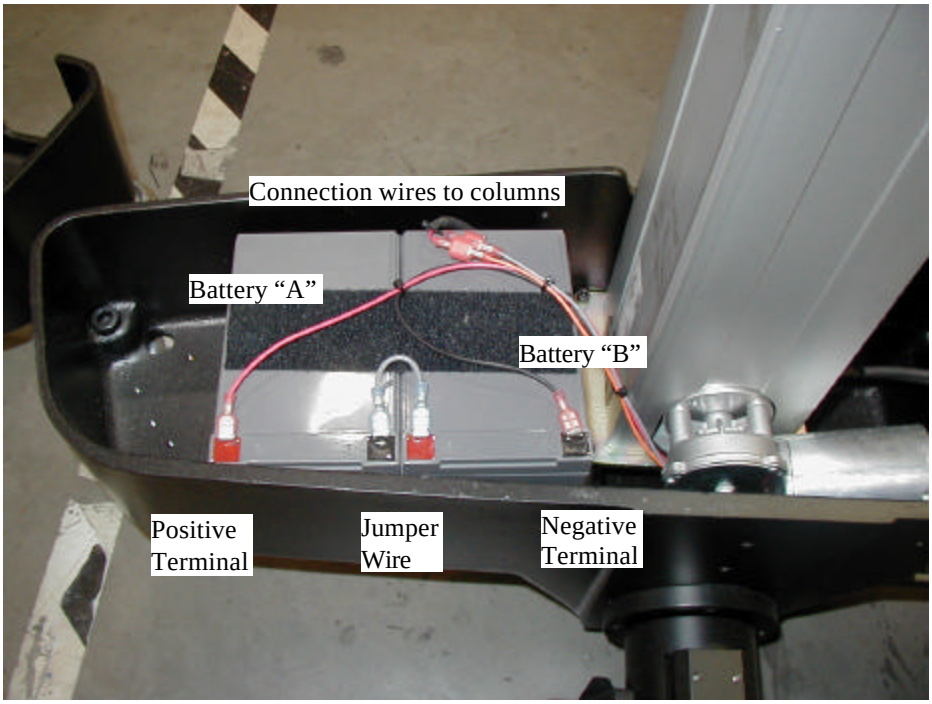


Figure 16 – Battery Placement

Battery Removal:

1. Switch ON/OFF Power-switch to "OFF", disconnect the power cord from power source (AC outlet).
2. Remove the foot-end base covers.
3. Disconnect the wires at the battery terminals. Cover at least one terminal of each battery with insulating material.
4. Carefully lift batteries out of base.

Battery Replacement:

1. Place replacement batteries in base as shown.
2. Install adhesive-backed loop closure (Velcro).
3. Attach battery wires as shown:
   - Red wire to positive terminal of battery "A".
   - Jumper wire from battery "A" to battery "B".
   - Black wire to negative terminal of battery "B".

Battery Function Check:

1. Verify Power Cord is disconnected from power source (AC outlet).
2. Turn ON/OFF Power-switch to "ON" (utilizing battery power).
3. Verify all Hand Control lights illuminate on and off sequentially.
4. Verify Hand Control and Base Panel Battery Status Lights:
   - Green = batteries installed correctly and charged.
   - Red = batteries need charging.
5. Fault Light on and Battery Status Light red = batteries not connected properly, or completely discharged. *Turn ON/OFF Power-switch "OFF" immediately and check:*
   - Batteries connected properly.
   - Batteries have been charged.
   - Repeat test that all lights on Hand Control illuminate on and off sequentially and Battery Fault Light is dark. If not, contact OSI Technical Service.

9.5 Power Supply

1. Switch off the table at the circuit breaker and disconnect the power cord from the source.
2. Remove the 10-32 screws holding the input plate and circuit breaker plates to the cover.
3. Remove the head end base covers.
4. Disconnect the negative battery wire.
5. Disconnect all cables from power supply and line filter. Remove transformer wires from power entry module.
6. Remove the three power supply tray assembly mounting screws and remove tray assembly.
7. Install replacement in the reverse order.

9.6 Controller Circuit Board

1. Switch off the table at the circuit breaker and disconnect the power cord from the source.
2. Remove the 10-32 screws holding the input plate and circuit breaker plates to the head end base covers.
3. Remove the head end base covers.
4. Disconnect the negative battery wire.
5. Disconnect all cables from controller circuit board
6. Remove the three 10-32 screws mounting the controller circuit board tray and remove tray assembly.
7. Install replacement in the reverse order.

9.7 On-Off Power Switch / Circuit Breaker

1. Switch off the table at the circuit breaker and disconnect the power cord from the source.
2. Remove the 10-32 screws holding the input plate and circuit breaker plates to the head end base covers.
3. Remove the head end base covers.
4. Disconnect the negative battery wire.
5. Disconnect the wires from Circuit Beaker / On-Off Switch terminals.
6. Remove the Circuit Beaker / On-Off Switch.
7. Install replacement in the reverse order.

9.8 Head-end Assembly

1. Switch off the table at the circuit breaker and disconnect the power cord from the source.
2. Remove the foot-end base covers and disconnect the negative wire at a battery terminal.
3. Remove the 180° Rotation Lock Handle.
4. Remove grip ring from Crossbar Shaft and slide the Traction Pulley Bracket, from the shaft.
5. Remove the 8-32 screws from rear of cover.
6. Remove the 2 screws from the front cover and slide inside cover down and away. Disconnect the electrical cable attached to the cover.
7. Remove the remaining screw at the front cover, and take the cover off by rotating it to the right.
8. Remove the ground wire screw.
9. Disconnect the electrical cable at the top of the column.
10. Remove the 10-32 screw underneath of the trolley in the groove at front.
11. Slide the Head End Assembly away from you and remove it from base.
12. Install replacement in the reverse order.

9.9 Head-end Tilt Motor

1. Disconnect the motor wire from the wire harness.
2. Remove the E-ring from the pivot axle at the Actuator rod joint end.
3. Slide the pivot axle out of the assembly.
4. Loosen and remove the shoulder screw (or E-rings on newer tables) at the base of the actuators and remove the actuator.

9.10 Foot-end Rotation Safety Lock Motor

1. Remove the shoulder screws holding the Actuator to the brake pivot arm, and foot pivot base.
2. Install in reverse order.
3. Adjust Rotation Safety Lock. (Refer to Rotation Safety Lock Adjustment).

9.11 Head or Foot-end Column

1. Remove any tabletop and H-Frame(s).
2. Switch off the table at the circuit breaker and disconnect the power cord from the source.
3. Remove the foot-end base covers and disconnect the negative wires at the battery terminals.
4. Remove the foot-end base cover by removing the mounting screws.
5. Remove the Head-end Assembly or Foot End.
6. Remove Head-end Base Cover: Remove the 10-32 screws holding the input plate and circuit breaker plates to the head end base covers. Remove cover.
7. Remove Foot-end Base Cover: Remove the 10-32 screws holding the cover. Remove cover.
8. Unplug the connectors at the base of each head-end and foot-end column.
9. Remove four socket-head screws attaching the column to the retractable beam.
10. Lift out of the base the column.
11. Install replacement in the reverse order.
12. Adjust Rotation Safety Lock per Rotation Safety Lock Adjustment.

NOTE: *Before tightening the mounting screws upon installation stand the base upright and attach a tabletop between the Head and Foot End Crossbar. With the screws loose, rotate the top slowly several times to align the Head and Foot Ends. Reach under the Head and Foot End Base and tighten the mounting screws before removing the tabletop.*

9.12 Retractable Center Beam

1. Remove any tabletop and H-Frame.
2. Switch off the table at the circuit breaker and disconnect the power cord from the source.
3. Remove the foot-end base covers and disconnect the negative wire at a battery terminal.
4. Remove head-end covers.
5. Unplug beam cables.
6. Remove the Head and Foot columns.
7. Remove the ¼-20 inch screws attaching the beam to head-end and foot-end bases.
8. Remove the center beam.
9. Install replacement in the reverse order.

9.13 Casters

1. Remove the ½-inch bolt from the outside of the base plate.

10.0 ADJUSTMENT of COMPONENTS

HEAD END

10.1 Tilt Actuator Rod End Length

1. Loosen lock nut on actuator rod end.
2. Rotate Actuator rod until six threads are showing on the rod end.
3. Tighten lock nut.
4. Disconnect the Actuator from the Base wiring and connect an external power controller to the Actuator.
5. Drive the tilt mechanism all the way right (Actuator extended). Watch for clearance between the Actuator rod and the Pillow Block at the end of Actuator travel.
6. If the actuator rod touches the Pillow Block, re-loosen the locknut and turn the Actuator rod as many turns as necessary to ensure clearance. Retighten the rod end.
7. Once complete, disconnect the tilt actuator from the external controller and connect to the base wiring.

10.2 180° Rotation Lock Sensor

1. Remove the blue 180° rotation lock handle.

2. Remove head-end cover per procedure; do not unplug electrical connector, hang cover on table base power cord storage bracket.
3. Loosen 8-32 button-head screw securing the 180° rotation-sensor (micro switch) mounting bracket. This is mounted just to the left of the blue 180° rotation lock handle. See Figure 8.
4. Tighten the blue 180° rotation bck handle until rotating crossbar resists 95 ft/lbs of rotational force in both directions using torque wrench and Rotational Test Bar (p/n T5890-21/23).
5. Adjust the 180° rotation-sensor (micro switch) mounting bracket until the micro switch clicks on. The "180° Rotation Lock Indicator" light should be illuminated blue. Tighten 8-32 button-head screw.
6. Test by unscrewing 180° Rotation Lock handle until "180° Rotation Lock Indicator" goes out. Retighten 180° Rotation Lock handle until "180° Rotation Lock Indicator" lights.
7. Retest that Rotating Crossbar resists 95 ft/lbs of rotational force in both directions using torque wrench and Rotation Test Bar.
8. If test fails, repeat adjustment procedure.
9. If test passes continue.
10. Install covers per procedure.
11. Install "180° Rotation Lock" handle and tighten until "180° Rotation Lock Indicator" light illuminates blue.
12. Retest that Rotating Crossbar resists 95 ft/lbs of rotational force in both directions using torque wrench and Rotation Test Bar P/N T5890-21-23
13. If test fails, repeat adjustment procedure.
14. If test passes adjustment is complete.

10.3 Home & Tilt Left/Right Sensors

1. Turn the Base power on.
2. Tighten the 180° Rotation Lock handle, and make sure that the indicator light is lit.
3. Using the Hand Control, drive the tilt mechanism to the right.
4. Loosen the 6-32 cap head screw beneath the sensor bracket and move the bracket closer to the pillow block until the left/right sensor switch clicks.
5. Using the Hand Control, drive the tilt mechanism to the left. Stop when the home sensor clicks. The indicator light should light up to confirm that the tilt drive is at home.
6. Tighten the 6-32 cap head screw.
7. Using the Hand Control, drive the tilt mechanism to the right for about three seconds.
8. Loosen the 180° Rotation Lock handle. The tilt mechanism should drive to the center and stop.
9. If it drives towards the center but stops before true level, the sensor switch is too close to the pillow block. Tighten the 180° Rotation Lock handle. Loosen the 6-32 cap head screw beneath the sensor bracket and move the bracket away from the pillow block slightly. Re-tighten the 6-32. Check this readjustment by repeating steps.
10. If it drives to the center but does not stop, either rocking back and forth or continuing past lever, the sensor switch is too far from the pillow block slightly. Re-tighten the 6-32 screw. Check this readjustment by repeating steps.
11. If it does not drive at all when the 180° Rotation Lock handle is loosened, there is an electronic fault in the Base. Check the wiring to the head end, and if this does not alter the condition of the base, replace the controller PC Board.

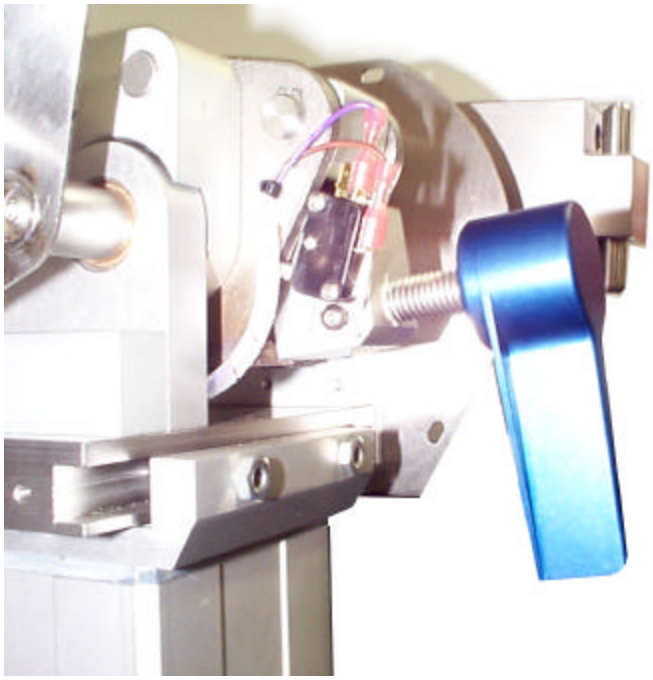


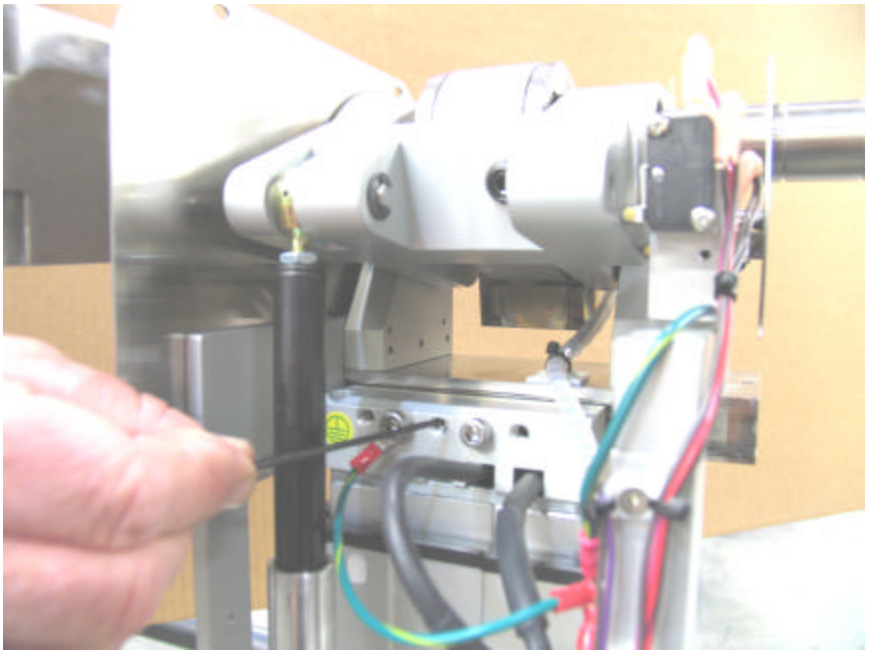
Figure 17: 180°- Rotation Lock Indicator Light limit switch and Lock Handle.

10.4 Head-End Slider Adjustment Procedure

Overview:
With one of the OSI modular (interchangeable) table-tops attached to the Advanced Control Base, in-line movement of the Head-end Slider (or trolley assembly) is required to accommodate Trendelenburg and Reverse-Trendelenburg positioning. Periodic adjustment may be needed to maintain proper friction of movement.

Tools Required:
Hex (Allen) Key, 5/64-inch
Force Gauge, to 25-pounds pushing force.

Procedure:
1. Turn "ON/OFF" Power Switch to "OFF", disconnect power cord from power source (AC wall outlet), allow 30 seconds for discharge.
2. Remove head-end pivot assembly cover per procedure.
3. Some models may have a set screw installed in front of the spring plunger. This screw must be removed prior to adjustment. Using 5/64-inch hex key, adjust Slider spring plunger (shown below) as needed.
4. Using force gauge pushing on rotating crossbar, verify Head-end Slider Assembly (without any top attached) moves in-line to its stops, in both directions, uniformly, with 20 to 25 pounds of force applied.



Head-end Pivot Assembly, Left Side (cover removed).

FOOT END

10.5 Rotation Safety Lock

As the Safety Lock wears, adjustment may be required to achieve complete locking. The adjustment for this is as follows:

1. The 5803 Base should be upright.
2. Supply power to the base and turn the circuit breaker on.
3. Remove the foot end cover.
4. If the sensor is not indicating that the Rotation Safety Lock is on when crossbar is secure, loosen the lock nut by one turn, then turn the adjustment setscrew counter clockwise, while maintaining the setscrew position, and tighten the lock nut. Verify operation of the Rotation Safety Lock by turning it off and then on again.
5. If the crossbar is not adequately secure when the sensor indicates that the Rotation Safety Lock is on, loosen the lock nut and turn the adjustment setscrew clockwise. Then, while maintaining the setscrew orientation, tighten the lock nut. Verify operation of the Rotation Safety Lock by turning it off and back on again.
6. The crossbar is secure when it resists 93 foot-pounds of torque without slippage, using torque wrench and rotation text bar P/N 5890-21-23.
7. Replace the cover.

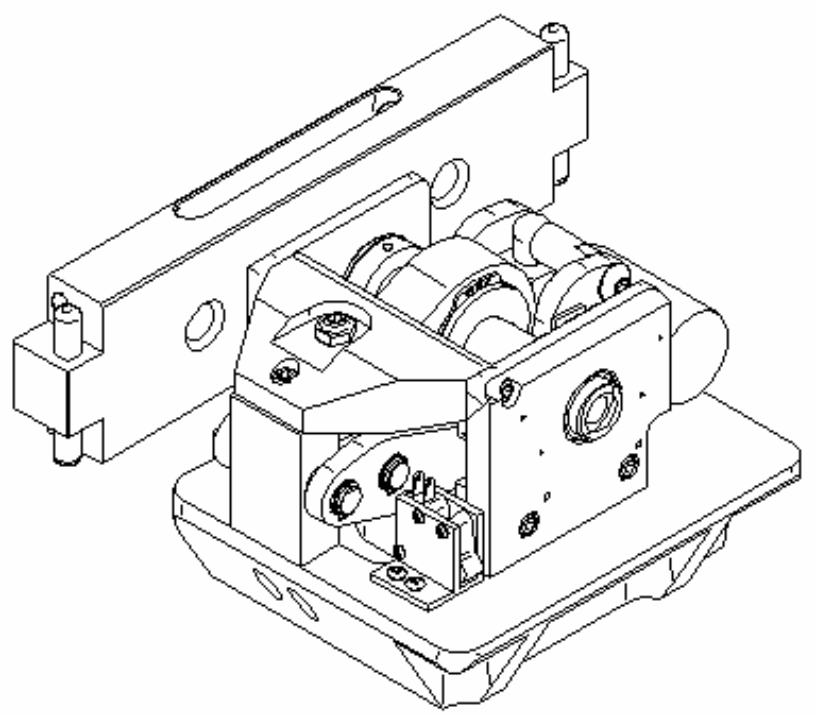


Figure 18: Foot End Assembly

10.6 Rotation Safety Lock (Brake) "ON" Sensor Setting

1. Remove the foot-end base covers.
2. Disconnect the battery wire.
3. Turn off the Rotation Safety Lock switch on the head cover.
4. Supply power to the Base and turn the circuit breaker on. Verify brake "off" sensor is closed. If it is not, the system may have an electronic fault.
5. Back out the setscrew that locates the brake clamp all the way (see Figure.4, Adjustment Setscrew).
6. Turn off the power to the Base (either unplug or turn off the circuit breaker). Wait until all the system lights go out.
7. Locate the "Brake On" sensor. Loosen the screw that holds the mount plate for the sensor to the Brake Lever.
8. Set the sensor all the way away from the motor housing. Snug the screw.
9. Restore power to the Base (plug back in and turn on the circuit breaker).
10. Turn the Rotation Safety Lock switch on; the brake motor will drive upward until locked. If it does not drive up, the system has an electronic fault. The Fault Light will be lit due to improper switch adjustment. Ignore.
11. Loosen the sensor bracket. Push the sensor body closer to the motor housing until a click can be heard. Re-snug the mount screw.
12. Turn the system power on again.
13. Turn the Rotation Safety Lock switch off; the brake motor will drive down until the brake "off" sensor switch closes.
14. Turn the Rotation Safety Lock switch on.
15. Verify that the switch is closed when the motor stops.
16. Reconnect the battery wire.
17. Replace the cover underneath the foot end base casting.

11.0 TECHNICAL DRAWINGS and PARTS LISTS

11.1 Table-base Interconnect Diagram

See attached drawing at end of manual.

11.2 Table-base Assembly Bill of Materials

See attached drawing at end of manual.

11.3 Replacement / Spare Parts List

1. Power Supply……..……..……...….(part number) 5803-48
2. 10 Amp Motor Control PCB…….5803-21
3. Telescopic I-Beam Assembly……5803-49
4. Hand Control……...…….6807-1
5. Circuit Breaker…….……. NV0387
6. Power Cord……...…….. NV0584
7. Battery…… NV0801
8. Rotation Test Bar……T5890-21-23

12.0 GLOSSARY of TERMS

Basic assumptions of Patient Orientation on the tabletop:
Our glossary of terms and technical procedures assume the patient is oriented with their head at the “front or head-end of table” and their feet at the “rear or foot-end of table”. The hand control functions are oriented for this position only.

“**Front of table**” indicates the end of the table where the power cord, "On-Off" switch, and Control Panel are located; otherwise referred to as the “head end”.

“**Rear of table**” indicates the opposite end of the table also referred to the “foot end".

“**Pedestal**” refers to one of two main column structures that support the tabletop.

“**Left side of the table**” refers to the table as you stand at the front of table.

“**Right side of the table** refers to the table as you stand at the front of table.

“**Raise the table**” refers to raising the height of the table.

“**Lower the table**” refers to lowering the height of the table.

“**Level the Table**” refers to leveling the tabletop regardless of height.

“Hospital Grade" outlet refers to a 120VAC outlet properly wired with earth ground: Neutral to Common = 120VAC; Neutral to Ground = 120VAC; Common to Ground less than zero point five (0.5) VAC.

13.0 OSI TECHNICAL SERVICE

13.1 Contact for Parts and Service

For detailed repair information or to order replacement parts, call the OSI Technical Services Department:

1-800-777-4674

A Technical Services line is available from 7AM-5PM PST, Monday through Friday. Please leave a message after business hours.
Please state *slowly* your name, phone number, your facility name and city, and affected equipment model number.

An e-mail message may be left anytime at techsvcs@osisosi.com or through the Technical Service icon in our web site: www.osiosi.com.

13.2 To order Replacement Parts (RP)

1. If unable to identify part - telephone, fax or E-mail to Technical Service.
2. If part is known - telephone, fax or E-mail part number and description to Customer Service for price and availability.
3. To place Replacement Parts (RP) order - telephone, fax or E-mail part number, description, price, customer number and method of shipment to Customer Service with purchase order. Indicate that order is for Replacement Parts (RP).

13.3 To return damaged parts (RGA)

1. Identify parts to be returned.
2. Telephone, fax or E-mail part number and description of parts for return to Customer Service for Return Goods Authorization (RGA) number.
3. Return ship parts with RGA number clearly marked on outside of package.
4. Complete Certificate of Disinfected Parts Document #40204-17.

13.4 To send a part or item here for us to repair (RA)

1. If unable to identify part - call, fax or E-mail to Technical Service.
2. If part is known - telephone, fax or E-mail part number and description to Technical Service for Repair Authorization (RA) number.
3. Clean (disinfect) parts prior to shipping; complete Certificate of Disinfected Parts Document #40204-17.
4. Ship part with RA number clearly marked on outside of package.
5. Part will be evaluated and customer will be contacted with the cost of repair.
6. After customer approval of repair cost, part will be repaired and return shipped to customer.

5803 INTERCONNECT DIAGRAM

SCHEMATIC IF 230V

SCHEMATIC IF 115V

230V

115V

HOT L

EARTH GND

EXTERNAL GND LUG

NEUTRAL N

BASE GROUND STUD

EXTERNAL GROUND STUD

CB

LINE FILTER

PART OF 5803-96

5803-85

CIRCUIT BREAKER CB3

PSP10M

P10

DC POWER SUPPLY 6800-200

COIL 1 115V

COIL 2 115V

24V

E12

E13

E14

E15

E16

E17

P15

PSP15M

P12

PSP12M

P11

PSP11M

P16

PSP16M

BATTERY STATUS LED RED/GREEN

PART OF 5803-88

5803-87

PJ20

P20

PJ5M

P5

5803-86

EXTERNAL GROUND STUD

BASE GROUND STUD

PART OF 5803-50

CENTER I-BEAM CBL1

2 12V BATTERIES

BT1

BT2

FOOT END COLUMN MOTOR

HEAD PIVOT ASSY

180° ROTATION LOCK

ROTATION SAFETY

LOCK INDICATOR

ROT SAFETY LOCK SWITCH

TILT CENTER INDICATOR

5892-91

5892-94

HT3M

HT3F

HT1M

HT1F

PART OF 5803-22

HCOLCBL2

HB1F

HB1M

TILT CENTER N.O. PNK

180° ROT LOCK SENSOR N.O. VIO

TILT LEFT/RIGHT SENSOR N.O. RED/BLU

10AMP MOTOR DRIVER BOARD 6800-4001

PJ4

P4

PJ3

P3

5803-84

+5V BLK

WHT

GRY/RED

WHT/GRN

BRN/GRN

WHT/YEL

GRN/YEL

E-GRND

TILT DRIVE MOTOR

HT2F

HT2M

HCOLCBL1

HB2F

HB2M

FAULT LED RED

PJ16

P16

PJ12

P12

POWER "ON" LED-GREEN

PJ10

P10

P19

P6

PJ6

P8

PJ8

HEAD END COLUMN MOTOR

HAND PENDANT 6807-1

HP1M

PART OF 5803-50

CENTER I-BEAM CBL2

HB3F

HB3M

FB1M

FB1F

PART OF 5803-22

FCOLCBL1

FT1F

5803-93

FOOT PIVOT ASSY 5803-2

FT1M

GRN BRAKE LOCK OFF SENSOR N.O.

YEL TILT LEFT LIMIT N.O.

GRY BRAKE LOCK ON SENSOR N.O.

WHT TILT RIGHT LIMIT N.O.

BRN

VIO TRACTION ARC SENSOR N.C.

HB4F

HB4M

FB2M

FB2F

GRN/YEL

CENTER I-BEAM CBL1

FCOLCBL2

FT2M

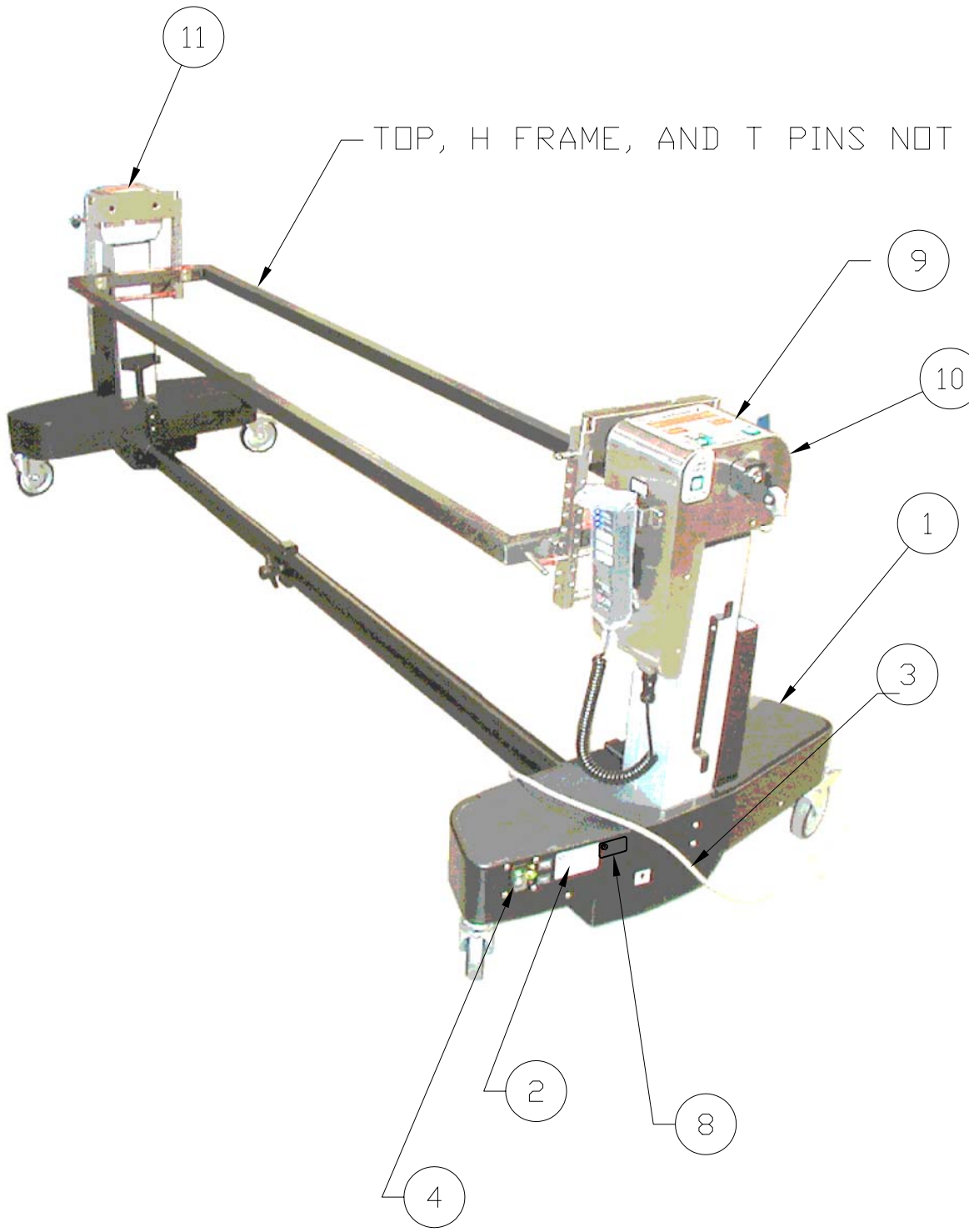
FT2F

BRAKE MOTOR

PACKAGING REQUIREMENTS:	☐ INDIVIDUAL PACKAGE TO PREVENT HANDLING & SHIPPING DAMAGE		
	☐ BULK PACK	☒ SPECIALTY PACKAGE	☐ LABEL

NOTES: UNLESS OTHERWISE SPECIFIED

1. PACKAGE IN CRATE, ITEM 7



REVISIONS					
REV	ZONE	DESCRIPTION	DATE	DWN	APP
A	ALL	INITIAL RELEASE (ECN03457)	10/17/03	RB	RB
B	A-2	ADDED ITEMS 8-11 (ECN04005)	1/9/04	DMH	RB

ITEM	PART NO.	DESCRIPTION	QTY
11	NP1612	WARNING LABEL, LOCKING BARS	1
10	NP1610	WARNING LABEL, 180° ROTATION LOCK	1
9	NP1609	WARNING LABEL, ROTATION SAFETY LOCK	1
8	NP1560	ETL LISTED TABLE	1
7	OS-42	5803 PALLET, 42 X 115.5	1
6	NW0422	MAINTENANCE MANUAL FOR 5803	3
5	NW0411	USER GUIDE MANUAL FOR 5803	3
4	NV0834	CIRCUIT BREAKER, 110V, 2.5A	1
3	NV0584	10' POWER CABLE	1
2	NP1822	BASE SERIAL NO LABEL FOR 5803	1
1	5803-5	SUB-ASSY, ADV. CONTROL I-BASE, DC	1

PARTS LIST

5803 ASSEMBLY AND INSPECTION CHECKLIST	MPI 177
ADDITIONAL SPECIFICATION OR DOCUMENTS REQUIRED:	YES

UNLESS OTHERWISE SPECIFIED:
ALL DIMS IN INCHES INCLUDING CHEM. APPLIED/PLATED FINISH. REMOVE BURRS & SHARP EDGES. DO NOT SCALE DRAWING.
MACH SURF. TOLERANCES
.X=±.030
.XX=±.010
.XXX=±.005
.XXXX=±.0010
ANGLES ±1°

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APPROVALS		DATE
DRAWN BY: R BAKER	INIT: RB	10-1-03
ENGR: R. BAKER	INIT: RB	01-16-04
CHKR:	INIT:	
MFG APPR.:	INIT:	
NEXT ASSY.:	ECN NO.: 04005	

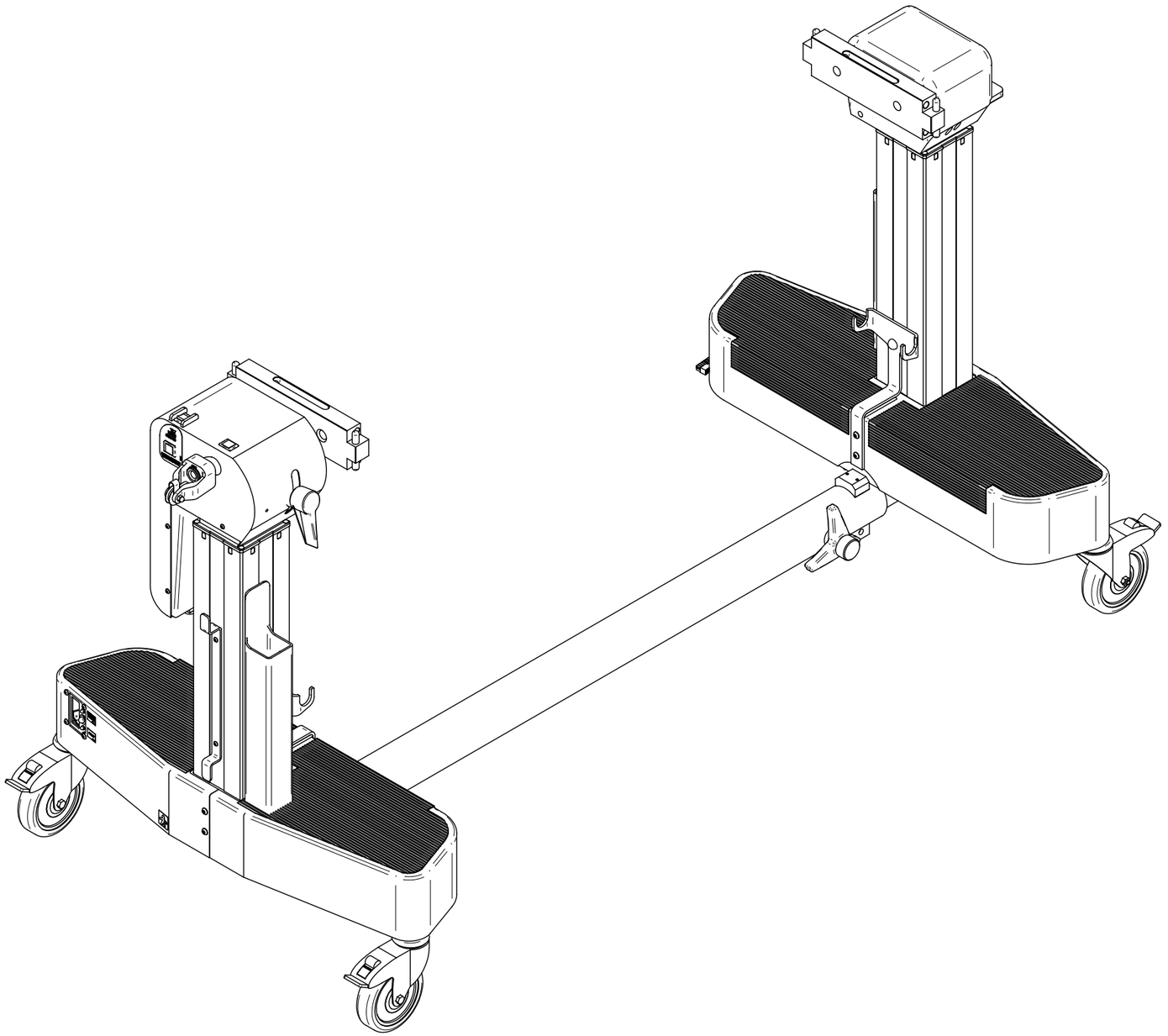
OSI
ORTHOPEDIC SYSTEMS, INC.
30031 AHERN AVE.
UNION CITY, CA. 94587
(510) 429-1500

MATERIAL: SEE PARTS LIST

TITLE: ADVANCED CONTROL I-BASE, DC

SCALE:	SHEET	SIZE	DWG NO.:	REV
NONE	1 OF 1	B	5803	B

4 3 2 1



ITEM	PART No.	DESCRIPTION	QTY
73	ADAXA	1/4-28 UNC HEX NUT	2
72	ADATA	#10-32 UNF HEX NUT	5
71	AAM6030CAA	M6-1.00 X 30MM SKT HD CAP SCR GRADE 12.9	16
70	AABF125CA	1/2-13 UNC X 1.25 SOCKET HD CAP SCREW	4
69	AAAW100CAC	1/4-20 UNC X 1.00 CAP HD SOCKET SCR SS	2
68	AAAW100CA	1/4-20 UNC X 1.00 CAP HD SKT SCREW BLACK	14
67	AAAW075CA	1/4-20 UNC X .75 CAP HD SKT SCREW	8
66	AAAW075AAC	1/4-20 UNC X .75 BUTT HD SKT SCREW S.S.	12
65	AAAW018HAC	1/4-20 UNC X .18 SOCKET SET SCREW S.S.	1
64	AAAT150AAC	#10-32 UNF X 1.50 BUTT HD SKT SCREW S.S.	1
63	AAAT100AAC	#10-32 UNF X 1.00 BUTTON HD SKT SCR S.S.	1
62	AAAT062CA	#10-32 UNF X .62 CAP HD SOCKET SCREW	4
61	AAAT037CAC	#10-32 UNF X .37 SKT HD CAP SCREW S.S.	1
60	AAAT037AAC	#10-32 UNF X .37 SST BT HD SKT SCR	19
59	AAAP037AAC	#8-32 UNC X .37 BUTT HD SKT SCREW S.S.	18
58	AAAM050BAC	#6-32 UNC X .50 FLT HD SKT SCREW S.S.	1
57	AAAM025BAC	#6-32 UNC X .25 FLAT HD SKT SCREW S.S.	5
56	AAAH037AAC	#4-40 UNC X .37 BUTT HD SKT SCREW S.S.	4
55	AAAH025AAC	#4-40 UNC X .25 SST BT HD SKT SCR	4
54	9650-231	1/2 IN RUBBER CUSHIONED STEEL LOOP CLAMP	2
53	6807-10	HAND PENDANT COMMON	1
52	5892-79	PULLEY ASSEMBLY	1
51	5892-67	FOOT END COVER	1
50	5892-42	INSIDE PANEL, HEAD END COVER	1
49	5892-35	RETAINER BLOCK, HEAD END TROLLY	1
48	5892-26	BASEPLATE, TROLLEY	1
47	5892-133	GUARD, ROCKER SWITCH	2
46	5892-130	CABLE, GROUND, HEAD END	1
45	5892-110	WASHER, BAFFLE SUPPORT	2
44	5892-108	BAFFLE, HANDLE STUD	1
43	5892-107	STUD, BAFFLE GUIDE	1
42	5892-1	HEAD END PIVOT ASSEMBLY	1
41	5848-231	2" X 7" P/S HOOK, BLACK	2
40	5848-229	2"X7" P/S HOOK, BLACK	1
39	5840-689	PUCK BACKING PLATE	1
38	5840-682	BRAKE PUCK	1
37	5840-659	QUIVER PAD	2
36	5840-656	QUIVER ASSY, WELDMENT	2
35	5840-293	CORD BRACKET	1
34	5803-99	FAULT INDICATOR ASSEMBLY	1
33	5803-98	BATTERY STATUS INDICATOR ASSEMBLY	1
32	5803-97	CABLE, HEAD END BASE GROUND	1
31	5803-96	CABLE, POWER	1
30	5803-95	CABLE, BATTERY, FOOT END	1
29	5803-94	CABLE, HEAD END WIRE HARNESS	1
28	5803-92	CABLE ASSY, ROTATION SAFETY LOCK	1
27	5803-91	CABLE, HEAD END COVER WIRE HARNESS	1
26	5803-90	INDICATOR, MODIFIED	2
25	5803-88	CABLE, CONTROL BOARD WIRE HARNESS	1
24	5803-86	CABLE POWER SUPPLY TO CONTROL BOARD PWR	1
23	5803-85	CABLE POWER SWITCH MODE	1
22	5803-84	CABLE, HAND PENDANT CONNECTOR	1
21	5803-67	BASE COVER, HEAD LEFT	1
20	5803-66	BASE COVER, FOOT LEFT	1
19	5803-65	BASE COVER, COMMON RT	2
18	5803-49	TELESCOPIC BEAM ASSEMBLY	1
17	5803-48	POWER SUPPLY ASSEMBLY	1
16	5803-43	BASE REAR PLATE	2
15	5803-42	BASE FRONT PLATE	2
14	5803-41	TABLE BASE	2
13	5803-4	CAM FOLLOWER BEARING, MODIFIED	2
12	5803-36	FOOT END MOUNT PLATE	1
11	5803-35	HEAD END COVER	1
10	5803-27	FOOT PAD, BASE COVER, HEAD LEFT	1
9	5803-26	FOOT PAD, BASE COVER, LEFT	1
8	5803-25	FOOT PAD, BASE COVER, RIGHT	2
7	5803-24	INPUT PLATE	1
6	5803-23	CIRCUIT BREAKER MOUNT PLATE	1
5	5803-22	MAIN COL. WITH CONNECTORS	2
4	5803-21	10 AMP MOTOR CONTROL BOARD ASSY FOR 5803	1
3	5803-2	FOOT END ASSEMBLY	1
2	5803-19	TABLE TOP BRACKET	2
1	5803-101	CABLE, BATTERY, HEAD END	1

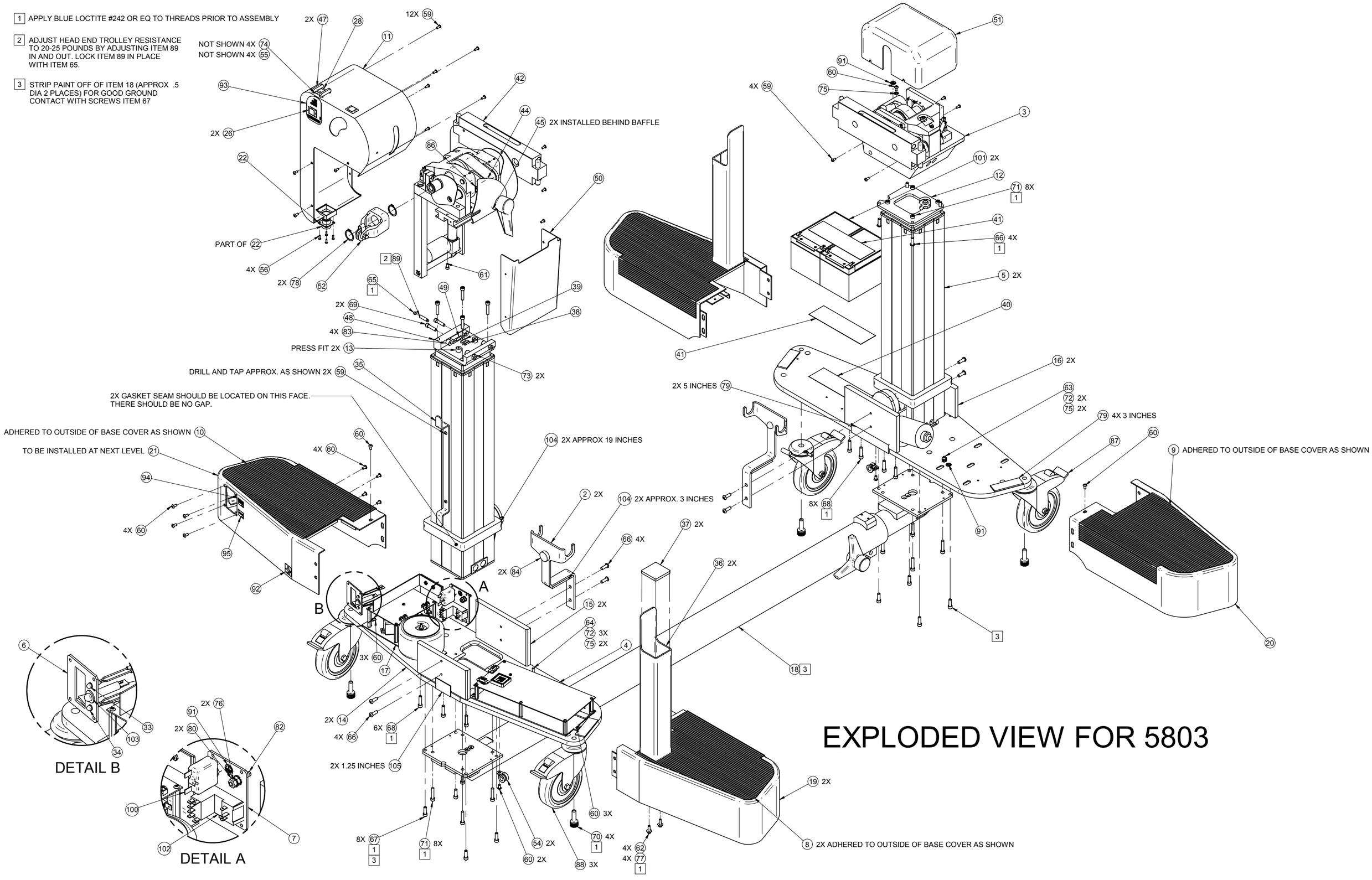
ITEM	PART No.	DESCRIPTION	QTY
105	SB200BLZP	2" BLACK P/S LOOP	2.50 in
104	SA0137	1/2"x1.0" NEOPRENE ADHESIVE BACK STRIP	48 in
103	NV0884	LED, PANEL MOUNT, GRN, NEWARK 16F776	1
102	NV0802	AC POWER ENTRY/ TYCO P/N 95F8112	1
101	NV0801	BATTERY 12V, 12 A H SONNENSCHEIN ES12-12	2
100	NV0603	CIRCUIT BREAKER, 10 A	1
99	NV0531	CABLE TIE MOUNT	5
98	NV0529	SPIRAL CUT TUBING, 1/4, NATURAL	0.5 ft
97	NV0528	FLEX GUARD WIRE LOOM, 1/4, BLACK	0.5 ft
96	NP1852	5803 HAND PENDANT ID LABEL	1
95	NP1821	FAULT INDICATOR LABEL	1
94	NP1820	BATTERY STATUS LABEL	1
93	NP1611	TILT DRIVE STATUS LABEL	1
92	NP1551	LABEL, MEDICAL, TYPE BF	1
91	NP1549	ELECTRICAL GROUND LABEL	6
90	NP1455	PATENT NUMBER LABEL NO. 5,088,706 & 5,131,106	1
89	NG0719	1/4-20 POSI HEX PLUNGER VLIER PN SSPH54N	1
88	ND0437	5" X 1-1/4" SWIVEL CASTER W/TOTAL LOCK	3
87	ND0436	5" X 1-1/4" SWIVEL CASTER W/STEER LOCK	1
86	NC0362	5/8" SQ 4-WAY CABLE TIE MOUNTING BASE	9
85	NC0312	CABLE TIES 5 7/8" LONG 3M PN-06201 OR EQ	37
84	NB0342	1" DIA SOLID RUBBER PLUG	2
83	NA0100	1/2 DIA ROLLER BEARING	4
82	MZNV0791	GROUNDING STUD	1
81	MZNP1811	LABEL, EQUIPOTENTIAL	1
80	MZA30106010	M6 HEX NUT, ZINC PLATED	2
79	KA0120100	1/8X1.0 ADH BACKED POLYURETHANE 60A	22 in
78	AJ0114	RETAINING RING EXTERNAL 1" DIA, SST	2
77	AEO21050A	#10 FLAT WASHER (.50 OD X .21 ID X .04)	4
76	AE025051ED	1/4 EXTERNAL TOOTH WASHR,ZP PN 91114A029	2
75	AE018037EC	STAR LOCK WASHER, EXTERNAL, .18 X.37	5
74	AE011021B	#4 SPLIT LOCK WASHER(.209X.112X.03)	4

BILL OF MATERIALS FOR 5803

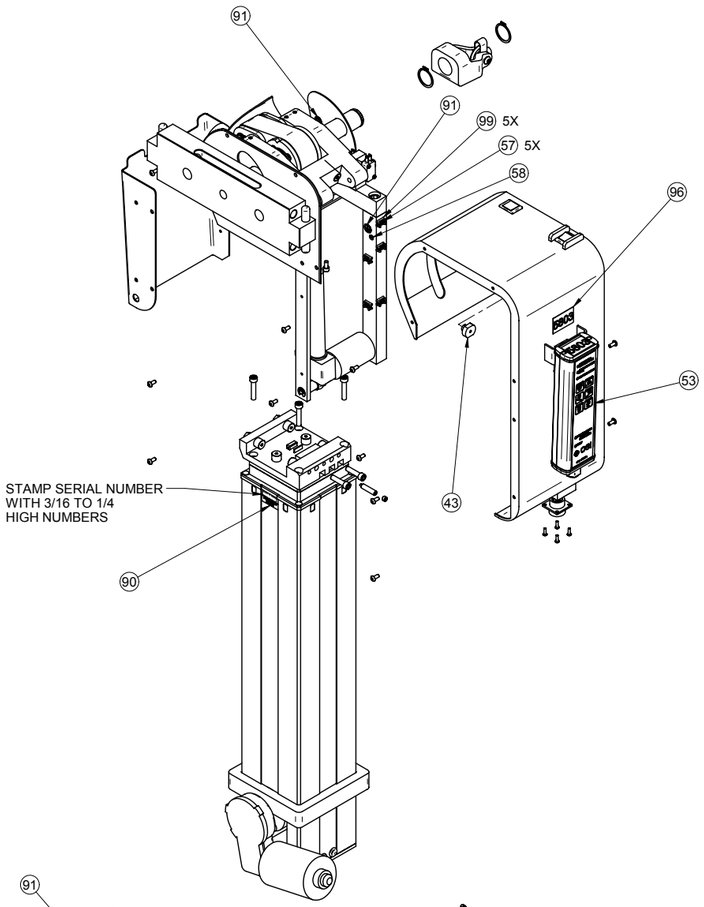
1 APPLY BLUE LOCTITE #242 OR EQ TO THREADS PRIOR TO ASSEMBLY

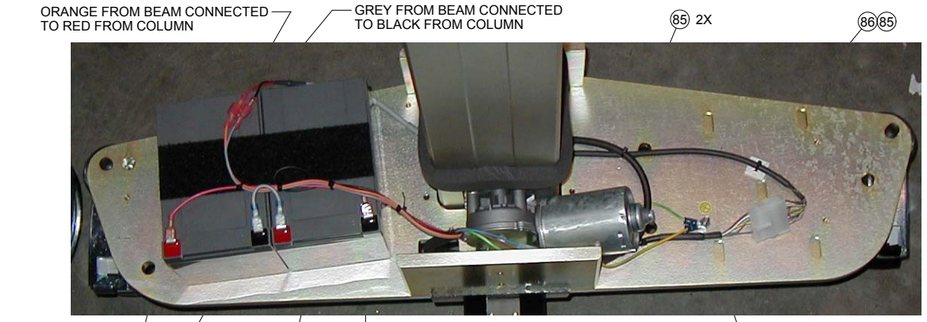
2 ADJUST HEAD END TROLLEY RESISTANCE TO 20-25 POUNDS BY ADJUSTING ITEM 89 IN AND OUT. LOCK ITEM 89 IN PLACE WITH ITEM 65.

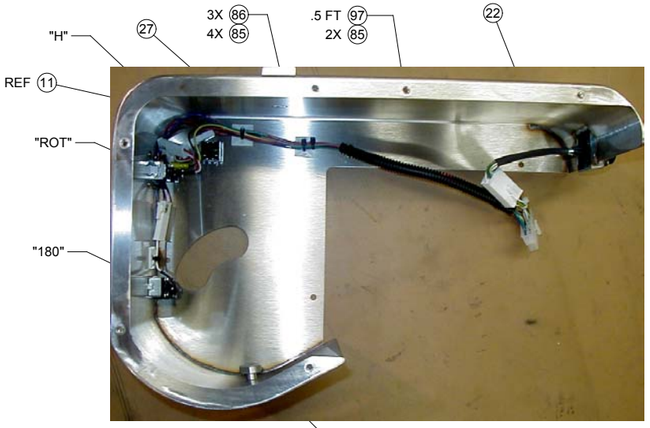
3 STRIP PAINT OFF OF ITEM 18 (APPROX .5 DIA 2 PLACES) FOR GOOD GROUND CONTACT WITH SCREWS ITEM 67

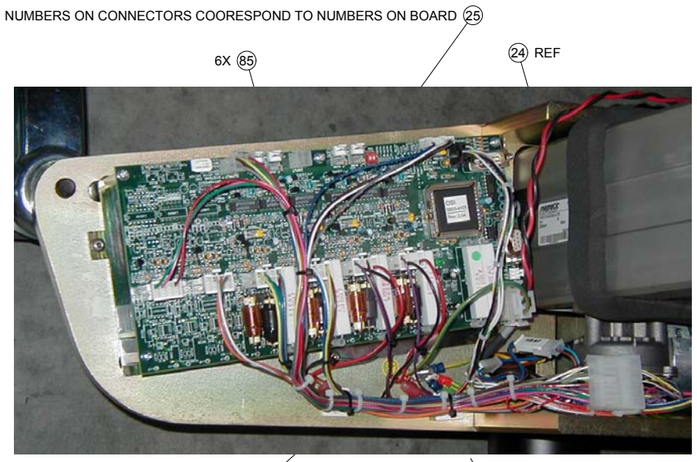


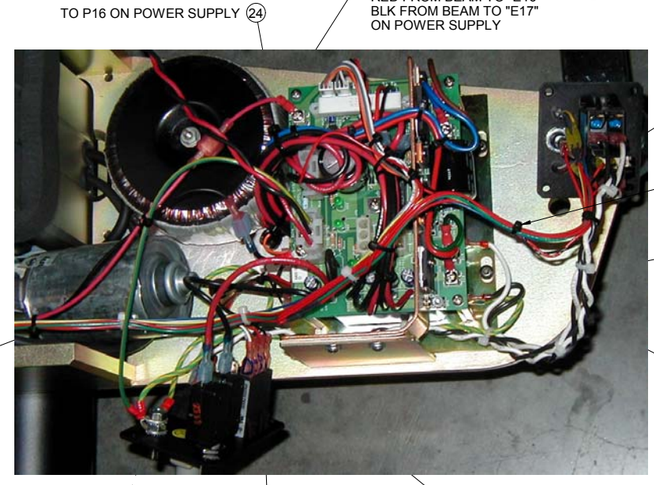
EXPLODED VIEW FOR 5803

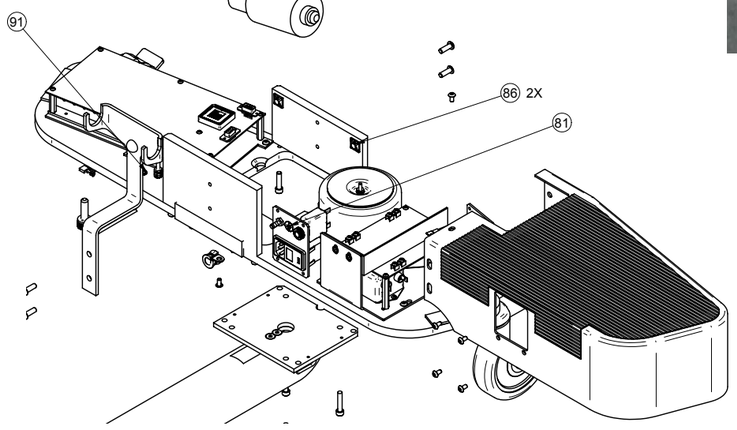


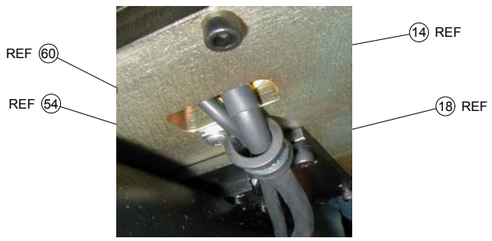


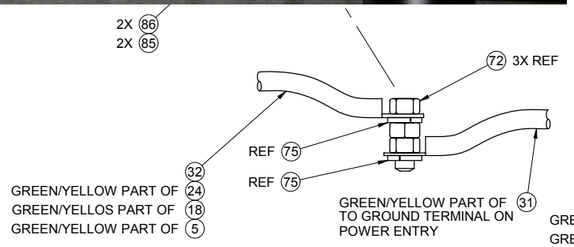


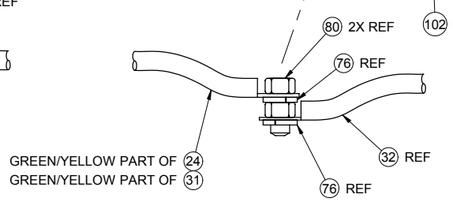


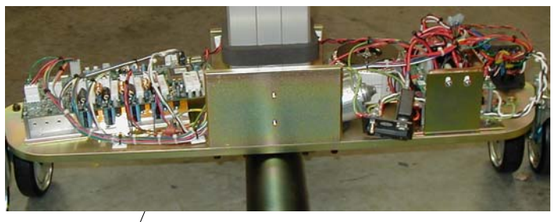

TO P16 ON POWER SUPPLY 24
RED FROM BEAM TO "E16"
BLK FROM BEAM TO "E17"
ON POWER SUPPLY
23 BLK TO "34", RED TO "31"
85 8X
CONNECT LEADS FROM CB3
TO CIRCUIT BREAKER
1
31 CONNECT "L" AND "N" TO "L" AND "N"
OF POWER ENTRY.
CONNECT "11" AND "21" TO "11" AND
"21" OF POWER SWITCH, NEXT
ASSEMBLY.
CONNECT REMAINING WIRES TO
COORESPONDING LOCATIONS ON
SWITCH AND LINE FILTER
102 REF, POWER ENTRY
17 REF, POWER SUPPLY

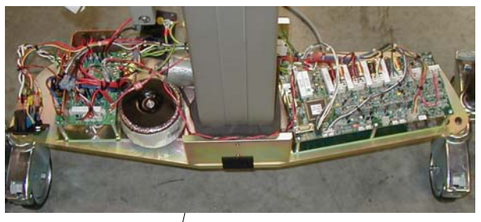


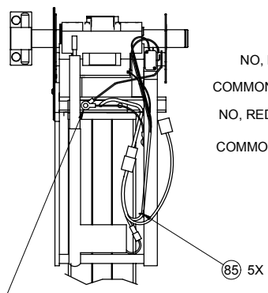


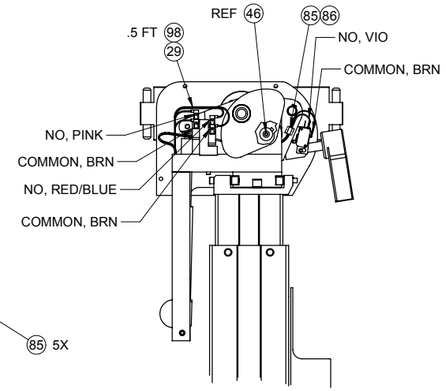










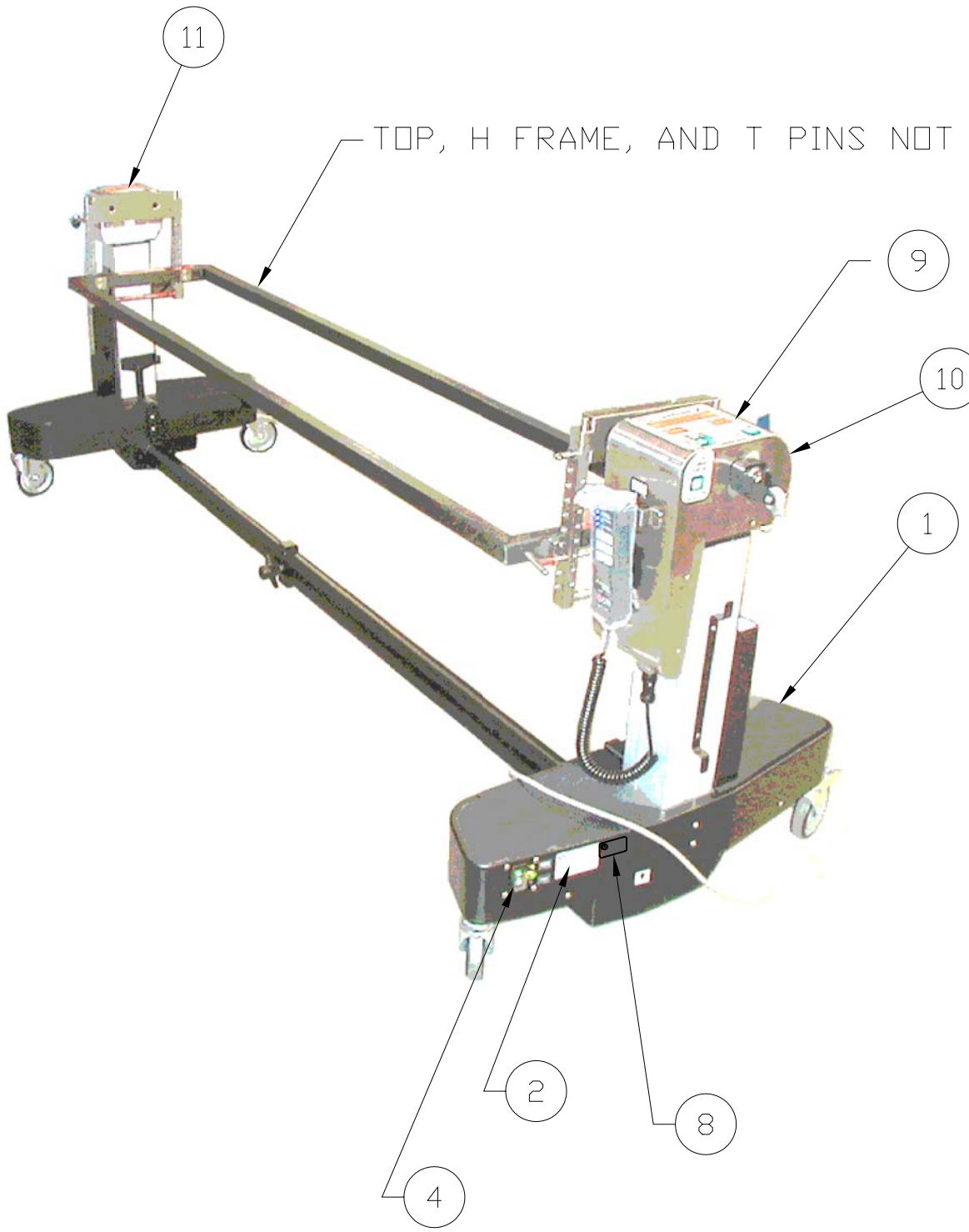


EXPLODED VIEW FOR 5803

PACKAGING REQUIREMENTS:	☐ INDIVIDUAL PACKAGE TO PREVENT HANDLING & SHIPPING DAMAGE		
	☐ BULK PACK	☒ SPECIALTY PACKAGE	☐ LABEL

NOTES: UNLESS OTHERWISE SPECIFIED

1. PACKAGE IN CRATE, ITEM 7



REVISIONS					
REV	ZONE	DESCRIPTION	DATE	DWN	APP
A	ALL	RELEASE TO PRODUCTION (ECN 04005)	1/9/04	DMH	RB

ITEM	PART NO.	DESCRIPTION	QTY
11	NP1612	WARNING LABEL, LOCKING BARS	1
10	NP1610	WARNING LABEL, 180° ROTATION LOCK	1
9	NP1609	WARNING LABEL, ROTATION SAFETY LOCK	1
8	NP1560	ETL LISTED TABLE	1
7	OS-42	5803 PALLET, 42 X 115.5	1
6	NW0422	MAINTENANCE MANUAL FOR 5803	3
5	NW0411	USER GUIDE MANUAL FOR 5803	3
4	NV0835	CIRCUIT BREAKER, 220V, 1.2A	1
3	-	-	-
2	NP1823	BASE SERIAL NO LABEL FOR 5803I	1
1	5803-5	SUB-ASSY, ADV. CONTROL I-BASE, DC	1

PARTS LIST

5803 ASSEMBLY AND INSPECTION CHECKLIST	MPI 177
ADDITIONAL SPECIFICATION OR DOCUMENTS REQUIRED:	YES

UNLESS OTHERWISE SPECIFIED:
ALL DIMS IN INCHES INCLUDING CHEM. APPLIED/PLATED FINISH. REMOVE BURRS & SHARP EDGES. DO NOT SCALE DRAWING.
MACH SURF. TOLERANCES
.X=±.030
.XX=±.010
.XXX=±.005
.XXXX=±.0010
ANGLES ±1°

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APPROVALS		DATE
DRAWN BY: R BAKER	INIT: RB	10-1-03
ENGR: R. BAKER	INIT: RB	01-16-04
CHKR:	INIT:	
MFG APPR.:	INIT:	
NEXT ASSY.:		ECN NO.: 04005

OSI
ORTHOPEDIC SYSTEMS, INC.
30031 AHERN AVE.
UNION CITY, CA. 94587
(510) 429-1500

MATERIAL:			
SEE PARTS LIST			
SCALE: NONE	SHEET 1 OF 1	SIZE B	DWG NO.: 5803I REV A

TITLE
ADVANCED CONTROL
I-BASE, DC, INTERNATIONAL

4 3 2 1

B

A